DEPARTMENT OF INDUSTRIES.

ANNUAL REPORT

OF THE

Director of Industries, Bihar, for the year 1937-38.

SUPERINTENDENT, GOVERNMENT PRINTING,
BIHAR, PATNA.
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CHAPTER I.

Organization, Staff and Tours.

I.—Establishment.

1. Mr. S. M. Dhar, I.C.S., was in charge of the department from the beginning of the year under review till 26th February 1938, on which date I took over the direction in addition to my duties as Cane Commissioner, Bihar.

II.—Tours.

2. During the year Mr. Dhar spent 120 days on tour including 10 days at Ranchi during the camp season. I was on tour for 12 days; Rao Bahadur K. S. Rao, Textile Expert, for **164** days; Babu D. N. Sen, Superintendent of Fisheries, for 94 days; and Maulavi Muhammad Yasin, Intelligence Officer, for 27 days. The Circle Officers of North Bihar and South Bihar and Chota Nagpur circles toured 140 and 151 days, respectively.

CHAPTER II.

Technical Education and Industrial Training.

I.—Review of progress during 1937-38.

3. The system of imparting technical education and industrial training remained unchanged. The importance of technical education is being increasingly realized by the general public and as such there was an appreciable increase in the number of applications received for admission into the technical and industrial institutions. There was no change in the number of Government institutions but the aided institutions increased from 9 to 11.

4. The inspection of technical schools was carried on as usual by Mr. J. Tullis, the Principal of the Bihar College of Engineering.

5. The Electrical Wiremen's class remained in abeyance this year also.

6. The number of pupils attending the various technical and industrial institutions during the year increased from 2,162 to 2,662.

7. The grants-in-aid disbursed to different institutions amounted to Rs. 20,440, details of which are shown in Appendix C. The total expenditure on technical and industrial institutions, both Government and aided, amounted to Rs. 4,53,992 as against Rs. 4,61,732 in 1936-37.

Miscellaneous.—Enquiries and requests for information, advice and suggestions relating to technical education and industrial training in and outside the province continued to be received from boys and their guardians in increasingly large numbers. These were promptly attended to.

II.—Progress of Government Technical Institutes.

8. *The Bihar College of Engineering.*—The battery in the workshop which had become unserviceable was replaced at a cost of Rs. 8,777. Six tents costing Rs. 1,146 were purchased during the year. Government sanctioned the purchase of a torsion testing machine and a weighing machine, orders for which were placed with the firms. The total strength of the college on the 31st March 1938 was 272 students as against 278 in the previous year.

(*i*) *Civil Engineering Degree Course.*—(*a*) *Admission.*—There was a further increase from 43 to 50 in the number of applications for admission. The number admitted was 28 of whom 12 were from outside including 2 from Orissa.

(*b*) *Examination results.*—

	No. appeared.	No. passed.
1st year	17	12
2nd year (Intermediate Civil Engineering)	27	22
3rd year	16	15
4th year (Bachelor of Civil Engineering)...	25	17

As no candidate passed in the First Division, the Prince of Wales Reception Fund Scholarship was not awarded this year.

(*ii*) *Civil Engineering Subordinate Course.*—The number of applications for admission increased from 108 in the previous

year to 110 in the year under review. Of these 55 students, including one repeater and two from the Rewa Estate, were admitted.

Examination results.—

	No. appeared.	No. passed.
1st year	33	31
2nd year	31	29
3rd year	41	25

As the new Governing Body was not yet constituted the joint examination of the subordinate engineering students of the Bihar College of Engineering and the Orissa School of Engineering was conducted by an interim Board consisting of the Director of Industries, Bihar, the Principal, Bihar College of Engineering, and the Principal, Orissa School of Engineering.

(*iii*) *Industrial Diploma Course.*—The Industrial Diploma Course continued to be popular and there were as many as 200 applications for admission as against 191 of the previous year. Of these only 22 candidates could be admitted.

Examination results.—

	Practical.		Theoretical.	
	No. appeared.	No. passed.	No. appeared.	No. passed.
1st year ...	17	17	10	10
2nd year ...	19	19	7	7
3rd year ...	17	17	6	6
4th year ...	14	14	4	4
5th year ...	15	15	3	2

The Pleaders' Survey class and the Munsifs' Training class were held as usual.

9. *Ranchi Technical School.*—As many as 168 applications were received for admission during the year under review and 55 candidates were admitted as against 48 in the previous year. Of these 35 joined the Industrial Diploma class, 9 Wood working class and 11 Leather working class. The total number of students on the roll on the 31st March 1938 was 169 as against 160 in the previous year, while their maximum number in the course of the year was 215 as against 203 in the preceding year. In all 35 students completed their course of training, viz., 22 from the Industrial Diploma course, 7 Improvers and 6 Leather workers.

10. *Tirhut Technical Institute.*—One hundred and ninety-six applications were received for admission as against 205 in the previous year. Of these 20 were admitted in the Industrial Diploma class, 8 in the Leather working class and 9 in the Oil Engine Driving class. The total number of students on the roll on the 31st March 1938 was 94 as against 83 in the previous year.

Examination results.—

Industrial Diploma Course.

	Practical.		Theoretical.	
	No. appeared.	No. passed.	No. appeared.	No passed.
1st year ..	18	18	15	14
2nd year ..	14	14	10	8
3rd year ..	14	14	6	5
4th year ..	12	12	5	4
5th year ..	9	9	5	5

The receipts on account of private works undertaken by the institute amounted to Rs. 2,810 as against Rs. 3,668 in the previous year.

One milling machine at a cost of Rs. 2,356, a Singer sewing machine at a cost of Rs. 260 and 25 Battery plates at a cost of Rs. 328 were purchased and added to the stock. The institute participated in the local G. B. B. College exhibition and exhibits were also sent to the All-India Exhibition, Lahore, and the Bihar Provincial Exhibition, Patna. The boarders continued to be accommodated in a rented house.

11. *Printing and Book-binding classes in Government Press, Gulzarbagh.*—During the year under review 15 candidates were admitted into these classes. The total number of students on the roll at the close of the session under report was 35. These received training in the different branches as shown below :—

	1st year.	2nd year.
Composing	8	7
Printing	2	8
Book-binding	5	5
	15	20

Twenty students of the 2nd year class sat for the final examination of whom 18 were successful.

12. *Dehri Workshop Industrial classes.*—Twenty-nine boys applied for admission out of whom 12 were selected. The total number of boys on the roll at the end of the year was 19 of whom 12 were in the 1st year and 7 in the 3rd year. These boys received practical training in the workshops and were taught machine drawing and mensuration. Three boys passed the final examination this year and all found employment. The department is considering a scheme for the introduction of the Industrial Diploma course in this institution.

13. *Evening Mining classes.*—These classes opened on the first Monday in June 1937 and lectures were delivered both at Jharia and Sijua. The special Survey class and the Gas-testing course were held as in the previous year.

There was a marked improvement in the strength of the classes, the total number being 64 at Jharia and 41 at Sijua as against 55 and 22, respectively, during the previous year.

Examination results.—

	Appeared.	Passed.
1st year	30	20
2nd year	11	10
3rd year	21	14

The success of the Evening Mining class students at the several examinations conducted by the Mines Department of the Government of India during the year under report is given below:—

First Class Certificate of Competency ..	3
Second Class Certificate of Competency ..	10
Surveyors' Class Certificate of Competency ..	3

Vernacular lectures on practical coal mining were delivered at six important mining centres as in the last year. The number of students attending these classes was 436 against 285 in the previous year.

14. *Cottage Industries Institute.*—This teaching institution which is being successfully worked for the last 14 years continued to demonstrate that the students while undergoing industrial training could earn not only the value of stipends paid and of raw materials issued to them but also a part of other expenditure on the institute.

During the year under report 109 students (average attendance) of the Cottage Industries Institute produced marketable articles worth Rs. 24,576 in the course of completing a series of graded exercises prescribed for practice. Of the various sections of this institute, the dyeing section yielded most efficient results and the value of the work turned out by a student was as much as Rs. 924 for the year. The dyeing section recovered not only the value of the dyes and stores used, i.e., Rs. 9,483 and the stipends paid to the students, i.e., Rs. 1,158 but also a sum of Rs. 4,599 for meeting a greater part of the cost of teaching.

The Cottage Industries Institute was provided with new hostel buildings for the accommodation of about 54 boys and also quarters for the hostel-superintendent. It is now able to provide residence for about 74 boys in all. As we are having at present over 160 students under training and as most of them come from places outside Patna, the present hostel accommodation is inadequte. With the growing activities of this institute, the space available for workshops, class-rooms, etc., in the existing buildings is found to be insufficient.

The Advisory Committee of the institute with Lady Imam as Chairman met twice during the year and offered valuable suggestions for enhancing the usefulness of the institute. The thanks of the department are due to the members for the valuable assistance it had from them.

(*a*) The popularity of the institute further increased, for as many as 1,971 candidates sought admission in January 1938, but not even 10 per cent of them could be admitted. Out of 85 students who appeared at the annual examination in December 1937, 79 passed and 40 of them joined the 2nd year course. Fifteen of the remaining number of students, who left the institute after the completion of their course of training, were reported to have been employed in industries in which they had been trained. The ex-students of this and other institutes cannot all make use of the industrial training which they receive. In the absence of cotton mills and similar industrial concerns, they cannot secure appointments which they prize most on account of the steady and certain income which they can get in service. The rules framed by the Provincial Government for the grant of loans under the State Aid to Industries Act are so inconvenient and the facilities provided for the marketing of the products of students are so inadequate that most of them cannot start independent business of their own. The Bihar Cottage Industries, however, placed orders with some of these students trained in weaving, dyeing and printing, and supplied them with raw material on

credit. If a separate organization for the marketing of products other than textiles be started the boys trained in pottery, toy-making, knitting, basket and cane manufacture, paper-making, etc., can also be helped similarly.

(*i*) *Weaving section.*—The course of training for hand-weaving was extended from one to two years during the year under report. In 1937, there were 21 students on roll including two sent by the Government of Orissa and one by the district board of Shahabad. Of these 16 appeared at the final examination and 15 of them who passed were promoted to the 2nd year class. Seventeen new students were also admitted in January 1938 for the 1st year class. The students in the course of their practical training produced goods worth Rs. 2,375 as against Rs. 1,958 in the previous year. The experiments in the weaving of Turkish towels and mock-leno cloth were continued during the year. Eighty samples of cloth and 47 of yarn were tested and the results of the tests were communicated to the parties concerned. Three hundred and eighty-two fly-shuttle sleys of different types, two carpet looms, two *newar* sleys and one dobby were examined and tested by the staff of the weaving section before they were sold by the institute to different parties. Technical assistance was also given to as many as 12 ex-students in the weaving of different types of fabrics.

(*ii*) *Dyeing and calico-printing section.*—Fourteen students including three sent by Orissa Government, district board of Shahabad and Maulanagar Wakf estate received training both in theory and practice of cotton dyeing and of block and aerograph printing. Twelve of these who passed in the final examination were promoted to the 2nd year class and 12 new students were admitted into the 1st year class. These students dyed 49,670 lbs. of yarn of cotton and wool, and printed 450 pieces of table covers and *chaddars* and also 12 silk *saris*. The total value of the work turned out by them was Rs. 15,240 as against Rs. 12,146 in the previous year. The dyeing instructor gave advice and help to a local factory in dyeing wool with vegetable dye-stuffs and also to an ex-student in executing orders placed by the Bihar Cottage Industries. The *mistri* of this section won the 2nd prize in the dyeing competition at the All-India Hand-weaving Exhibition held at Lahore.

(*iii*) *Knitting section.*—Of the 10 boys who had been trained 8 appeared at the annual examination and 6 passed. In January 1938, 10 students were admitted. Four designs for fancy socks were produced and some experiments were conducted on the flat knitting machine purchased during the year. The output

of the students during the year amounted to Rs. 1,077. The Patna Industrial School for women was helped with a loan of two knitting machines for a short period.

(*iv*) *Carpet and durrie section.*—Of the 18 students (including one from Orissa) trained in carpet, *durrie* and *newar*-weaving, 13 appeared in and passed the annual examination. Eight designs for *durries*, two for carpets and two for druggets were produced. Two carpets of a Government department which had been badly damaged by white ants were also repaired under the supervision of the teaching staff. The output of the students increased from Rs. 2,336 to Rs. 2,624 during the year. A few ex-students were given technical advice and assistance.

(*v*) *Toy-making and painting section.*—Five students were trained in the making of cardboard toys, five in making wooden toys, and one in turning lacquered toys. Of these students, one had been sent by the district board of Shahabad. Seven new designs in cardboard, one in wooden and one in lacquered toys were produced. Six electric lamp-stands were manufactured against orders. The students turned out more work during the year than what they did in previous years. The value of their output was Rs. 939 against Rs. 773 in the previous year. An ex-student was given help in manufacturing toys for the institute.

(*vi*) *Tailoring section.*—This new section was started at the end of 1936 with 15 students including one from the district board of Shahabad and one from Maulanagar Wakf estate. Fourteen of them appeared at the final examination in December 1937 and all excepting one passed and were promoted to the 2nd year class. A fresh batch of 16 students was admitted in January 1938 for the 1st year class. These boys in the course of their training, both in theory and practice, produced work valued at Rs. 1,108. With a view to provide necessary training for the boys, orders for making garments were received and were executed to their satisfaction. A few local tailors who approached the master-cutter for advice received the same.

(*vii*) *Pottery section.*—This section along with that of tailoring was started in 1936 under a Bihari graduate of the Benares Hindu University. He secured a more lucrative post in the United Provinces and left the institute. Another science graduate qualified in ceramics was appointed at the end of the official year. During the year under report 9 students including one from Maulanagar Wakf estate received training and passed

the final examination. For the 1938 session, 9 boys were admitted. The value of work turned out by these students during the official year was Rs. 743. Some experiments were conducted with China and ordinary clays, and with colour glazes on both China clay and earthenware articles. Several models were designed and moulds were prepared. The most important of these was that of Jesus Christ, measuring 3 feet in height, prepared against an order received from the local Roman Catholic Mission. As certain difficulties were experienced in the working of the kiln, the services of Mr. Agrawala of the Ceramic Department of the Benares Hindu University were obtained from the Vice-Chancellor of the University. As a result of the improvements suggested by this expert and effected in the kiln, coal consumption was reduced from 25 mds. to 14 mds. per firing and the time taken by one-third. In order to get a higher temperature, he suggested that the chimney should be replaced by one of larger diameter.

(*viii*) *Cane and basketry section.*—The starting of this section was delayed as the foreman appointed for the same could not join duty before July 1937. After the purchase of necessary equipment and raw materials for this section, 11 students were admitted for training in August 1937. As they could not get necessary training in six months, they continued to receive the same in 1938. These boys in the course of nine months produced chairs and teapoys of different designs, flower stands, walking sticks and baskets of a total value of Rs. 470. Experiments were conducted to test the suitability of local raw materials for basket making. The services of the foreman were lent to a mission in the Champaran district to train a few "Doms" in improved methods of bamboo-work. A few persons of Pahari, a village near Patna, were also trained in making date and palm leaf plaits.

(*ix*) With a view to revive the manufacture of hand-made paper as a cottage industry in this province, Government were pleased to sanction in March 1938 the starting of a paper-making class at the Cottage Industries Institute, Gulzarbagh, temporarily for a period of six months in the first instance with effect from the 1st March 1938 at a recurring cost of Rs. 950 and a non-recurring cost of Rs. 150. This class could not, however, commence its working during the year under report, as it took some time to make some preliminary arrangements.

(*b*) *Weavers' stores.*—The sale of improved appliances increased to Rs. 4,747 during the year, the same for 1936-37

being only Rs. 3,241. The institute sold to private parties rope-twisting machines, the use of which had been demonstrated in different parts of the province, along with looms, loom parts fast dyes, etc. As the clerical staff of the institute could not devote sufficient attention to these sales on account of increased office and accounts work resulting from the addition of three new departments, a temporary clerk was engaged to take charge of these stores and the stationery. He was permanently appointed in January 1938.

(c) *Exhibitions and fairs.*—As in the previous years, this institute played an important part in the local provincial exhibition held at Patna. It also participated in the exhibitions held at Hajipur, Purnea, Bihta, Dumka, Patna College, Cawnpore, Lahore, Mysore, Delhi, Madras, and in Dewas State (Central India) and was awarded one gold and one silver medals and two certificates. The dyeing *mistri* of this institute who competed for a prize in the Lahore exhibition was awarded a silver medal and Rs. 15.

(d) *Visitors.*—Mr. A. Butler, Director, International Labour Bureau, and three of his assistants, Mr. Kumarappa of Wardha, the Director of Industries of the Mysore State, the Industrial Adviser and another officer of the Ceylon Government, Mr. V. S. Dubey of the Benares Hindu University, Dr. Gopal Rao of the Andhra University and Mr. M. P. Gandhi of Rohtas Industries were some of the several outside visitors to this institute during the year. Their remarks in the visitors book show that the institute is doing good work.

(e) *Financial results.*—While the gross expenditure on this institute increased from Rs. 58,746 to Rs. 68,010 due to the starting of additional sections, viz., cane-furniture and basketry section and the development of the pottery and a few other sections, the receipts on account of the sale of the students' output and weavers' requisites also increased from Rs. 20,701 to Rs. 28,779. The financial statement attached to this report will show that the net cost of working this institute amounted to Rs. 37,327 as against Rs. 33,865 in the previous year.

15. *Silk Institute, Bhagalpur.*—This institute continued to impart training in (1) sericulture, (2) silk dyeing and printing and (3) weaving and also to popularize Bihar silks by marketing some of these both in India and outside. Although this latter activity is not the legitimate function of an educational institution, it had to be carried on by the teaching staff in the absence of a separate marketing organization for silk goods.

Twenty-four students including five non-stipendiaries received training during the year both in practice and theory as per approved syllabus. At the annual examination held in December 1937, 19 students passed and 9 of them were reported to have been employed in private factories at the time of writing this report. In January 1938, a batch of 19 new students was admitted out of 205 applicants. Besides these regular students, 21 artisan boys also received practical training in the preliminary processes of silk-weaving. Of these four were reported to be employed in private factories and 12 to have continued to work in the institute. Financial difficulties are in the way of the ex-students making use of their training. Although Government offer small loans under the State Aid to Industries Act to the cottage workers, the ex-students of the textile institutes have so far failed to take advantage of the same on account of the conditions as regards form of security and rate of interest.

(*a*) The various activities of the institute during the year under report are briefly summarized below :—

(*i*) *Rearing, reeling and spinning.*—In 1937, sericulture and ericulture courses were combined into one and seven students were trained not only in the rearing of mulberry and eri silkworms but also in reeling and spinning of cocoons. Eighteen broods of "eri", 15 of mulberry and 3 broods of *tasar* were reared and 14,071, 1,583 and 50 layings of "eri", mulberry and *tasar* seed eggs respectively were supplied to 176 applicants. Mulberry cuttings and castor seeds were also distributed free to 180 persons. The efforts of the institute to train the women outside the institute in spinning "eri" yarn of fine counts were continued and out of 93 of them, about 20 could spin yarn of 2S count and 30 of 3S count. During the year, 201 seers and 10 chhataks of "eri", *tasar* and mulberry silk thread was spun, both in and outside the institute.

(*ii*) *Dyeing.*—Four students received training in the dyeing of silk yarn with both vegetable and aniline colours and in block and aerograph printing, and they dyed 1,926 lbs. and degummed 1,112 lbs. of silk yarn. In January 1938, a batch of 4 new students was admitted. Experiments with the extraction of vegetable dyes were continued and dye pastes and powders were manufactured out of different materials.

(*iii*) *Weaving.*—Eight students received training in weaving and 7 of them passed successfully in the annual examination held in December 1937. A fresh batch of 8 students was

admitted in the following month. Silks of different patterns of a value of Rs. 1,705 were woven by the students during the year as against an output of Rs. 1,866 in the previous year. The equipment of the weaving section was increased by the addition of a jacquard machine and two dobbies purchased from Mau in U. P. Forty-one new designs were prepared for mufflers, handkerchiefs, dress material, table-covers and mats, tennis and polo mufflers, curtains and bedspreads.

(*iv*) *Commercial section.*—As orders continued to be received from America and London agents, the staff had to devote much of their attention to the execution of the same as in the previous year. For this purpose, the institute issued dyed yarn to 80 weavers individually and collected woven goods of a value of Rs. 12,846. Bhagalpur handkerchiefs woven by skilfully mixing different classes of silk yarn of mulberry, eri, *tasar* and *muga*, either reeled or hand-spun, were much appreciated for the beauty of their designs and texture. These are now being used in America not only for neckwear but also for making ladies' shoes and handbags of one colour scheme. Tennis and polo scarves of hand-spun "eri" in various designs are also much admired.

(*v*) *Exhibition.*—With a view to give wide publicity to these unique fabrics, the Silk Institute participated in the exhibitions held at Delhi, Lahore, Madras and Mysore and also in those at Patna, Dhanbad, Dumka, Bhagalpur, Purnea, Chapra, Bihta and Baunsi. Bhagalpur silks were also exhibited in the British Industries Fair as usual and also in Toronto and Budapest fairs. The institute was awarded a gold medal at the Patna exhibition for demonstrations in vegetable dyeing.

The institute helped a few of the weavers of Bhagalpur in getting the cards for their jacquard machines cut and sold one reeling machine, five improved charkhas, five twisting machines and five looms.

(*vi*) *Condition of local industry.*—There was nothing unusual to report either in the trade or in the economic condition of the silk weavers which continued to be unsatisfactory. The only workers who earned good wages during the year were the washermen who washed and finished the silk fabrics. The weavers, in their anxiety to secure more profitable markets, started weaving goods of foreign staple yarn (spun artificial silk) in the place of waste-spun silk yarn the price of which had increased on account of heavy import duty. The local merchants also tried to sell reeled mulberry and *tasar* silk imported from

Japan; but the weavers found the latter to be inferior in quality to the local variety of *tasar* silk. On account of the low production of *tasar* cocoons during the year, the prices of both the cocoons and *tasar* yarn were high. In spite of such high prices for local *tasar* as well as for imported spun-silk yarn, there was no perceptible increase in the use of either reeled mulberry silk or hand-spun "eri" at Bhagalpur. The use of basic colours and cheap Japanese *markin* cloth in the place of fast dyes and silk and *bafta* fabrics also depressed the dyeing and printing trade. However, one more silk factory was started during the year and the number of power looms increased to 90. As a result of the demonstration given of the jacquard machine obtained from Mau, five such machines were introduced among the weavers. To enable the weavers to weave such fabrics as reeled mulberry *saris* and shirtings and *tasar* coatings requiring twisted yarn, the Government have sanctioned the purchase of a silk-throwing plant, which will be worked at the Silk Institute.

(*vii*) *Advisory Committee.*—The Advisory Committee under the chairmanship of Rai Bahadur Bansidhar Dhandhania met four times during the year. I take this opportunity to express the gratitude of the department to all the members of the committee for their co-operation in improving the local silk industry. Our thanks are also due to Mrs. Klinar of Jamshedpur who helped the institute with suggestions in designs.

(*viii*) *Visitors.*—Of the several persons who visited the institute during the year, mention may be made of the Hon'ble the Prime Minister of Bihar.

(*b*) *Financial results.*—The gross expenditure on this institute and the receipts on account of the sale of finished goods decreased from Rs. 33,985 and Rs. 18,091 in 1936-37 to Rs. 31,677 and Rs. 16,894 respectively, but the net cost of maintaining this institution which amounted to Rs. 12,382 increased by Rs. 1,363.

16. *Wool-Weaving Institute.*—This institute continued to train youngmen in improved methods of wool-spinning and weaving and participated in the exhibitions held at Patna, Allahabad and Lahore. Thirteen students who had completed their course of training appeared at the examination in December 1937 and 15 students were admitted in the following month out of 147 applicants. Of the 12 students who were successful in the examination, 6 are reported to have been employed in blanket-weaving. The new marketing organization, viz., the Government Wool Emporium, Gaya, offers these ex-students help in

marketing their production. But owing to their inability to tender suitable security against raw materials issued to them, many of them are not able to take advantage of this facility.

The students, who were trained both in theory and practice, produced blankets, *lohis*, rugs, etc., of a total value of Rs. 3,262 against a production of Rs. 2,512 in the previous year. But the amount realized by the sale of some of these goods was only Rs. 1,793. The net cost of maintaining this institute during the year was Rs. 3,293 (vide Appendix H) as against a cost of Rs. 3,813 in 1936-37.

Babu M. Sadanand, who was in charge of the institute for nearly six years, left the institute at the end of the official year to take up service in Orissa. Till the appointment of a permanent supervisor, the weaving supervisor of the wool demonstration party was in charge of this institute. On account of constant changes in the temporary staff it has become difficult to maintain a reasonable standard of efficiency. The present accommodation for the institute is insufficient. Additional accommodation is urgently required for a class-room, workshop and a hostel.

17. *Half-time Weaving School, Bihar.*—The half-time weaving school at Biharshariff continued to demonstrate the advantages of imparting vocational training along with general education in the upper primary and middle school classes. The staff which is temporary continued to be the same as in the previous years. In 1937 there were 60 students on roll and the average attendance was 58·7. All of them appeared at the annual examinations and 52 of them passed including 8 who left the school after completing the course. With 37 students admitted in January 1938, the number of students on the roll at the end of the official year was 74. Of the 8 students who passed the final examination in 1937, 5 were reported to be weaving at home and 3 to have joined the institutes at Bhagalpur and Gaya for further training. The students of the 7th class received instructions in eri-rearing and spinning and were supplied with "eri" eggs and cotton seeds to enable them and their guardians to rear silkworms and grow cotton plants at home. Three of the ex-students who took part in the weaving competitions held at Bihta were awarded prizes. The absence of a play-ground for the school is keenly felt by its students.

The Managing Committee of the school with the Sub-divisional Officer as Chairman met twice during the year. Through the efforts of the Chairman, the school secured three

stipends of Rs. 2 each per month from the Subdivisional Officer, Bihar, district board of Patna and the municipality of Bihar-shariff.

The net expenditure on this school for the year 1937-38 was Rs. 4,072 as against Rs. 3,573 for the previous year.

III.—Progress of Aided Technical Institutions.

18. *Jamalpur Technical School.*—Admission to the Apprentice Mechanics class was made as usual in June. There were 1,113 applications, of which 265 were from Biharis. Only 25 candidates were selected for admission and of these 13 were Europeans and Anglo-Indians and 12 were Indians. The number of Biharis selected was 4 of whom 2 were Muslims. The total number of apprentice mechanics in this school on the 31st March 1938 was 125 of whom 28 belonged to this province. There were also 29 special apprentices. The number of trade apprentices was 298 of whom 47 completed their apprenticeship. This school received a grant-in-aid of Rs. 9,717.

19. *Jamshedpur Technical Night School.*—During the year 388 students applied for admission and 281 were admitted. The total strength of the classes on the 31st March 1938 was 398 as against 323 of the last year. One hundred and eighty-seven students sat for the final examination of whom 134 were successful. Of these 75 were the employees of the Tata Iron and Steel Company, Ltd., 47 of the Associated Companies and 12 were non-employees. The school received a grant-in-aid of Rs. 1,800 during the year.

20. *Benagaria Industrial School.*—The school continued to grow in popularity. Sixty-one candidates applied for admission of whom 25 were admitted,—13 in carpentry and 12 in weaving. The practical test was held in December 1937 and 15 students were granted certificates,—9 of carpentry section and 6 of weaving section. The total number of students on roll on the 31st March 1938 was 45. The work of the school is satisfactory, with plenty of outside orders. The sales for the year amounted to Rs. 2,568. The total expenditure of this school amounted to Rs. 8,118 of which Rs. 2,800 was contributed by Government.

21. *St. Rita's Knitting School, Bettiah.*—The school continued to provide useful industrial training for girls. The school showed satisfactory progress and the total number of students on roll rose to 66 as against 45 of the previous year. Silk *painting* work was introduced during the year and the school

participated in the Eucharistic Congress Exhibition at Madras with great success. The total expenditure on the school during the year was Rs. 7,606 of which Government contributed Rs. 900.

22. *Khunti Co-operative Home Industries Association, Ltd., Weaving School.*—Eighteen candidates applied for admission of whom 8 were admitted. The total number of boys on the roll on the 31st March 1938 was 10. The total expenditure of the school was Rs. 2,410 of which Government contributed Rs. 840.

23. *Technical School, Katkahi.*—Twenty-two boys were admitted during the year and the total number of boys in the school during the year was 32. Twenty-seven boys, viz., 7 from Carpentry section and 20 from the Weaving section passed the final examination. Seven students were sent to the Ranchi Technical School for one year's improver's course. The total expenditure of the school was Rs. 2,064 of which Rs. 600 was contributed by Government.

24. *B. N. Surveying and Technical School, Dighra.*—There were 50 applicants of whom only 13 students joined. There were besides the 13 regular students, some 192 students of the local board M. E. school who attended the different classes of the technical school for part-time vocational training, 8 students in surveying, 2 in tailoring and 2 in weaving completed the course and passed the final examination. The total expenditure of the school was Rs. 2,441 of which Government contributed Rs. 600. A sum of Rs. 494-8-0 was also paid as a non-recurring grant for the purchase of equipment.

25. *B. N. Mallik Industrial School, Ryam.*—The total number of students enrolled was 25 of whom 4 subsequently absconded and one died. There were only 20 students on roll at the end of the year. These students were taught *durrie* and *newar*-weaving. Besides local orders, orders from the Bihar Cottage Industries and other persons from Muzaffarpur, Darbhanga and Champaran were executed by the school. Since its establishment the school has played an important part in reforming the Magahiya Dusadhs of the area. The total expenditure on the school was Rs. 352 of which Government contributed Rs. 333-5-0.

26. *Hindu Technical Institute, Monghyr.*—The department recognized this school during the year under report and a recurring grant-in-aid of Rs. 80 per month was sanctioned to it for one year with effect from the 1st April 1937. A non-recurring grant of Rs. 500 for the purchase of equipment was also paid to the

school. There were 80 students under training of whom 13 passed the final examination. The total expenditure on the school was Rs. 1,756 during the year.

27. *Scholarships and stipends.*—The department continued to award a number of scholarships and stipends for the training of students outside the province in subjects for which adequate facilities do not exist within the province. During the year under report, besides the three scholarships of Rs. 60 each a month at the Indian School of Mines, Dhanbad, and the two post-graduate scholarships in Applied Chemistry at the Science College, the department awarded 21 scholarships and stipends of values ranging from Rs. 15 to Rs. 50 in various technical and industrial subjects to the boys of the province for training outside the province, viz., one in sugar technology, 2 in sugar boilers course, 3 in textile manufacture, 2 in tanning, one in radio, 3 in fine arts, one in practical weaving, 2 in hat making, 2 in celluloid manufacture, 2 in wireless, one in sericulture and one in motor mechanics. No scholarship was awarded for training abroad for want of funds.

28. *Imperial Institute of Sugar Technology, Cawnpore.*—Three new scholars were sent to the institute during the year under review and two were continuing from the previous year. One out of the two old scholars left the institute after completing his training in July 1937. There were thus only four scholars from Bihar at the close of the year. The progress of the students was reported to be satisfactory.

29. *Bengal Tanning Institute, Calcutta.*—Two new scholars were sent to the institute during 1937 and two students were continuing from the previous year. There were thus four scholars in the institute at the close of the year. One student who was sent in 1935 left the institute in August 1937 after completing the course. The progress of the students was reported to be satisfactory.

30. *Victoria Jubilee Technical Institute, Bombay.*—Of the six old scholars from the province who were reading in the textile department of the institute, one completed his training in 1937. Three new scholars were admitted during the year. Thus there were altogether eight scholars from Bihar in this institute when the year closed. Their progress report was satisfactory.

31. *Indian School of Mines, Dhanbad.*—During the year under report three scholarships were awarded by this department to boys of the province reading at this school. There were altogether seven scholars of this province studying in the school. Their progress was reported to be satisfactory.

CHAPTER III.

Development of Handicrafts and Cottage Industries.

I.—Demonstration Parties.

32. *Weaving demonstration.*—The seven weaving demonstration parties referred to in the report of last year continued to introduce labour-saving appliances such as fly-shuttle looms, warping drums, dobbies and jacquards among the weavers and to train the weavers in the weaving of fabrics of better designs required for local market. During the year under report 2,381 fly-shuttle sleys, 181 warping drums, 79 dobbies and 7 jacquard machines were fitted up in the houses of weavers. Sleys, loom parts, rope machines and dyes recommended by the department of a value of Rs. 3,767-8-3 were sold by the parties and demonstration work was extended to 255 new villages, thus bringing the total number of villages in which improvements in weaving had been introduced to 5,143. The working of a wooden jacquard machine made at Mau in U. P. was demonstrated at Bhagalpur, Manpur, Raghunathpur and Patna. As the cost of the same is about Rs. 25 it is hoped that a large number of these machines will come into use in the near future, for the weaving of jacquard-bordered *saris* for which a demand already exists. Efforts are being made by the demonstration parties to introduce the use of long warps and drums which increase the efficiency of the weavers by about 20 per cent but these efforts except those of Gaya and Patna parties were not much of a success.

33. On account of the inadequate staff sanctioned for this demonstration work, i.e., a party of seven *mistris* for as many as 13,500 looms on an average, the progress in replacing the primitive appliances with modern ones had so far been slow. At the rate at which we are going at present it may take several years to introduce all the improvements recommended by this department. There is, therefore, an urgent need to increase the demonstration staff so as to provide at least one party for each district having on an average 6,000 looms.

34. The work of each of the seven parties during the year under report is briefly summarized below and in Appendix J.

(*a*) *Patna party.*—The most successful party was that of Patna under the supervision of Maulavi Shamsul Haque. It introduced 383 sleys, 77 warping drums and 8 dobbies and rendered technical assistance to the weavers' societies of Fatwa and Biharshariff, industrial schools of Arrah and Sewan and some

of the ex-students and agents of the Bihar Cottage Industries. This party took an active part in the exhibitions held at Patna and Bihta in conducting not only demonstrations but also spinning and weaving competitions in the latter. About 24 carpenters were given instructions in the manufacture of improved looms and appliances and blankets of a value of Rs. 56 were sold on behalf of the Wool-Weaving Institute and the Wool Emporium at Gaya. The weaving supervisor examined the students of the knitting section in the Cottage Industries Institute and took part in the annual stock-taking of raw materials of the institute.

(*b*) *Gaya party.*—The next successful party was that of Gaya which had to its credit the introduction of 316 fly-shuttle looms, 53 warping drums, 40 dobbies and one twisting machine of five spindles. Among the improvements effected in the designs of fabrics, *tasar* and artificial silk *saris* of Manpur with jacquard designs on borders are worth mentioning. Technical assistance was rendered to a weaving factory at Daltonganj, a couple of master weavers and a few carpenters.

(*c*) *Ranchi party.*—This party stationed in the districts of Ranchi and Hazaribagh having about 19,000 handlooms, helped 342 weavers in using fly-shuttle looms. Thirty-one warping drums and 16 dobbies were also introduced. The local carpenters manufactured not only sleys, dobbies and warping drums, but also shuttles and pirns required for the weavers. Some weavers near Ranchi, who had been producing cloth of only plain weave, started weaving huckaback and honeycomb towels and *chaddars* and also mosquito curtains of leno weave. This party participated and conducted demonstrations in two exhibitions and helped a weavers' society, a weaving factory and four aided weaving schools, in solving their technical problems. In the competition held at Bihta the first prize was won by a Ranchi weaver.

(*d*) *Dumka party.*—A separate party was sanctioned for the Santal Parganas in 1936. During the year under report as many as 383 weavers replaced their primitive looms with fly-shuttle ones and five warping drums were introduced. This party could not, however, introduce the weaving of designs with dobbies and jacquards. The industrial school at Benagaria and a few local carpenters received assistance from this party which also participated in the exhibitions held at Hijla and Mahisbathan and sold Bihar textiles worth Rs. 502. The weavers of Rajmahal and Godda subdivisions started using medium counts of yarn for the production of such staple fabrics as *saris*, *dhotis*, shirtings, *lungis*, etc.

(*e*) *Bhagalpur party.*—This party introduced only 348 looms, 3 warping sets, 4 dobbies and 6 jacquards. The number of power-looms in Bhagalpur factories increased by eight during the year. The supervisor induced three merchants to market hand-woven fabrics and took part in the exhibitions held at Purnea and Khagra. He also examined the students of the Silk Institute in weaving and counted the stock of the institute at the end of the official year.

(*f*) *Darbhanga party.*—Three hundred and thirty looms, 10 drums and 5 dobbies were introduced and demonstrations were conducted in Hajipur and Darbhanga exhibitions by this party. It also helped the textile institutes of the department at Patna and Gaya in disposing of their finished goods of a value of Rs. 442-4-0.

(*g*) *Manbhum party.*—The least successful party was that of Manbhum which had to its credit the introduction of only 279 looms, 2 warping drums and 5 dobbies and the sale of looms and loom parts worth Rs. 740. It fitted up a jacquard machine of Mau type at Raghunathpur and demonstrated the weaving of leno cloth at Singhbazar and Damda. Four fly-shuttle looms were introduced among the *tasar* weavers of Mouda in the Singhbhum district for the first time. This party conducted demonstrations for a fortnight at Purulia for the benefit of about 150 village uplift workers who were under training there and helped the rural uplift society in fitting up a few looms in some primary schools and in the houses of non-weavers. It also gave technical advice to the two jails at Purulia and Chaibassa and participated in the exhibitions held at Purulia and Dhanbad.

35. *Dyeing demonstration.*—The seven dyeing *mistris* attached to the seven weaving demonstration parties continued to train the weavers and dyers in the use of fast dyes under the technical guidance of the dyeing demonstrator. They visited 307 villages and trained 655 people in the use of fast dyes. As a result of these demonstrations, dyes worth Rs. 1,232-8-6 were sold during the year. The departmental sales of dyes were not much, as several shop-keepers also started selling dyes and chemicals. The propaganda carried on to make the traditional *motia* cloth more attractive, by the use of dyed yarn or by bleaching and printing the same, was successful to some extent, particularly in Gaya and Bhagalpur districts. Naphthol and Indanthren colours are now being used in the weaving of coarse *chaddars* in the Ranchi district. Although silk printing is carried on on a comparatively small scale, the printing of artificial silk fabrics besides Japanese *markin* employs a fairly large number of people

in Bhagalpur. We have so far failed to introduce the dyeing of Naphthol red as it is found to be more expensive than Turkey red dyeing, and to replace the imported dyed yarn with locally-dyed yarn in the Kishanganj subdivision of the Purnea district. The aerograph printing introduced at Bhagalpur was not also appreciated by the public.

The dyeing demonstration party rendered technical assistance to a few industrial schools and conducted demonstrations in the exhibitions held at Hajipur, Hijla, Dhanbad, Bihta, Purnea, Purulia and Patna.

36. *Wool-weaving demonstration.*—The wool-weaving demonstration party was started in the month of February 1937 with its headquarters at Gaya. Four *mistris* of this party were stationed in the districts of Gaya, Shahabad and Palamau, in which blanket-weaving is carried on extensively. The object of this party is to improve the efficiency of blanket weavers by the introduction of labour-saving appliances and the use of long warps and to teach them the weaving of new designs with yarn dyed in different colours. In carrying out its programme of work, the party received valuable assistance from the new marketing organization, viz., the Government Wool Emporium, Gaya, which, while placing orders with the weavers for new types of fabrics, supplied dyed yarn on credit. In spite of this facility offered, only 26 weavers purchased fly-shuttle looms. The party also restarted 12 of the old looms which had been introduced by the cotton-weaving parties of Patna and Gaya in previous years, as these were lying idle for some reason or the other, and trained 12 weavers to use warping drums. Demonstrations in wool-weaving were conducted at the exhibitions held at Patna and Lucknow.

37. *Rope-making demonstration.*—This is the second year of the working of the rope-making demonstration party. This party which demonstrated the working of rope-twisting machines imported from Japan (in the absence of suitable machines of local manufacture) in the districts of Patna, Gaya, Hazaribagh, Manbhum and Purnea, introduced eight of these machines in the year under report. As the supervisor selected from the *mistri* class was found to be incompetent to supervise the demonstrations efficiently, his services were dispensed with in the month of December 1937 and the *mistris* were asked to work under the supervision of the weaving supervisors of Patna, Gaya, Ranchi, Manbhum and Bhagalpur.

38. *Eri-rearing demonstration.*—Five eri-rearing instructors under the supervision of the Superintendent of the Silk Institute

Bhagalpur, trained some of the agriculturists of Purnea, Darbhanga, Champaran, Manbhum and Palamau districts in eri-rearing and spinning and the Ranchi "eri" seed-supply station supplied to them disease-free eggs free of cost. The efficiency of the work done by these instructors was judged by the quantities of cocoons and yarn purchased by the Silk Institute, Bhagalpur, although a small part of the yarn and cocoons produced by the rearers was used in the weaving of fabrics for their own use. The total purchases of the institute for the year were 141¾ seers of cocoons and 27¼ seers of spun thread. The most successful work was that of the Darbhanga instructor who supplied 37¾ seers of cocoons and 11¼ seers of yarn. The instructor in Palamau purchased on behalf of the institute 71¾ seers of cocoons but failed to induce the rearers to spin yarn. At Ramganj in the Purnea district most of the cocoons produced were spun into thread and 12¾ seers of yarn and 6¼ seers of cocoons were supplied to the Silk Institute. While the Champaran *mistri* could purchase from the rearers only 12 seers of cocoons and 2¾ seers of yarn, that of the Manbhum district could do much less. As the Superintendent of the Silk Institute, Bhagalpur, is not able to supervise the work of these eri instructors effectively, it is proposed to place the latter under the administrative control of the weaving supervisors when the scheme for increasing the number of demonstration parties is sanctioned. Growing of castor plants and the rearing of silk worms was also carried on in the two central jails at Bhagalpur and Buxar, in which about 100 lbs. of cocoons were reported to have been produced. The Silk Institute at Bhagalpur consumes at present a very much larger quantity of eri yarn than what is produced in Bihar and during 1937-38 it purchased from Assam 300 seers of eri thread, the local supply being only 186½ seers. The prospective rearers of this province may, therefore, be assured of a local market for their output though to a limited extent.

II.—Purdah Manufacture.

39. The *purdah* manufacturing section of the Bihar Cottage Industries financed by the provincial Government with a grant of Rs. 1,72,956 for the purchase of raw materials and finished goods and for meeting the cost of carriage, agents' commission and a part of the establishment of the Bihar Cottage Industries, purchased from 12 co-operative societies and 35 master weavers and ex-students of the Cottage Industries Institute, goods worth Rs. 1,00,781 during the year under report as against Rs. 1,23,230 in the previous year. The value of yarn supplied to them

for weaving these goods amounted to Rs. 52,857 as against Rs. 54,092 in the previous year. Twenty new patterns in *purdahs*, six in *durries* and twelve in staple goods were prepared and included in the list of standard patterns. During the year the prices of *purdahs* were reduced by about 30 per cent. The London agent marketted about half of the quantity of goods sold by him in the previous year. The New Zealand sales, however, increased by 46 per cent and an order of a value of Rs. 5,155 received from the United States of America for the first time was executed. The sales in India further increased during the year and amounted to Rs. 77,977. Thus the total sales of finished goods were about the same as in the previous year and amounted to Rs. 1,69,197 as against Rs. 1,69,347 in 1936-37.

40. Due to the revision in the prices of *purdahs*, the gross profit earned during the year, i.e., Rs. 29,000-11-4½ was less than that for the previous year by about Rs. 9,000.

III.—Bihar Cottage Industries' Handloom Marketing Organization.

41. (*i*) The Bihar Cottage Industries financed by the Government of India (with a grant of Rs. 45,800) continued to advertise and popularize the hand-woven fabrics of Bihar and to conduct experiments in co-operative manufacturing, machine finishing and marketing of hand-woven cotton fabrics through the subsidized sale-depots, commercial travellers and canvassing agents.

(*ii*) *Manufacturing*.—In order to guarantee the quality of the fabrics and the fastness of their colours this organization continued to purchase yarn of approved quality direct from the mills with funds provided by the Provincial Government and to get the same dyed at the Cottage Industries Institute under expert supervision. The number of weavers' societies manufacturing goods for the Bihar Cottage Industries increased at the beginning of the year from 11 to 12 and that of master weavers and ex-students of the Cottage Industries Institute from 30 to 35. But the former was, however, reduced to 9 in October 1937 when three societies of Orissa ceased to manufacture goods for the Bihar Cottage Industries. All these societies and agents, working in different parts of the province, produced both art textiles and staple goods worth Rs. 1,00,781 (as stated in the above paragraph) of which goods worth Rs. 44,278-7-3 (*purdahs* Rs. 31,633-11-3 and staple goods Rs. 12,644-12-0) were supplied by societies. The most successful

of them was that of Biharshariff which earned after paying the salary of its own supervisor a net profit of Rs. 2,040-7-9 for the year 1936. As the accounts of most of the societies for the year 1937 have not been audited so far, the profits of these societies for only 1936 along with the value of goods supplied by them to the Bihar Cottage Industries for the last two official years are given below :—

Names of societies.		Net profit for the year 1936.			Supplies made to the Bihar Cottage Industries in 1936-37.			Supplies made to the Bihar Cottage Industries in 1937-38.		
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1. Weavers' Co-operative at Biharshariff.	Societies	2,040	7	9	24,242	14	0	22,231	8	0
2. Weavers' Co-operative at Irba, Ranchi.	Societies	495	3	2	9,683	14	6	7,444	11	3
3. Weavers' Co-operative at Fatwa, Patna.	Societies	144	11	0	8,727	8	0	5,479	5	0
4. Weavers' Co-operative at Pachimtola, Bhagalpur.	Societies	143	9	0	773	8	3	1,392	11	6
5. Weavers' Co-operative at Uttertola, Bhagalpur.	Societies	40	5	0	143	12	0	...		
6. Weavers' Co-operative at Rohika, Madhubani.	Societies	...			3,310	15	0	2,529	14	3
7. Weavers' Co-operative at Bhowara, Madhubani.	Societies	138	2	0	2,984	5	0	1,924	1	3
8. Weavers' Co-operative at Tektar, Darbhanga.	Societies	76	8	1½	1,369	13	9	610	13	0
9. Weavers' Co-operative at Obra, Gaya.	Societies	(—) 71	10	0	2,473	5	0	1,957	8	0
10. Weavers' Co-operative at Nawa ptna, Cuttack.	Societies	52 (for 1937-38)	3	0	965	6	0	420	7	0
11. Weavers' Co-operative at Barabagh, Cuttack.	Societies	29 (for 1937-38)	9	0	483	5	0	221	9	0
12. Weavers' Co-operative at Torabai, Cuttack.	Societies	4 (for 1937-38)	0	0	153	7	0	65	15	0
					Total	...		44,278	7	3

The working of some of the societies was not quite satisfactory. There were no adequate arrangements for financing some of the societies and the management of a few others was inefficient. No new societies were started during the year. The Tektar society discontinued weaving on account of mismanagement. The organizer could not persuade the weavers of Darbhanga to form themselves into societies and the affairs of the credit society of the Raghunathpur weavers in the Manbhum district remained unsettled. The expenditure for organizing and managing the weavers' societies with a staff of one organizer and

seven supervisors amounted to Rs. 6,328-15-6 and the same was met out of Rs. 8,000 set apart and provided in the budget of the Registrar of Co-operative Societies.

The master weavers and the ex-students of the Cottage Industries Institute manufactured goods of a value of Rs. 56,503. The former were found to be indispensable in this business organization for the reason that the societies could not be relied upon for prompt execution of orders.

(*iii*) ***Finishing.***—The working of the finishing department was not satisfactory, although there was an increase in the quantity of cloth bleached and finished. During the year 22,736 lbs. of fabrics of different qualities were bleached, finished and calendered against an output of 12,357 lbs. in the previous year. As the equipment was found to be incomplete, a cloth expander was purchased and fitted to the finishing range and the Government of India were requested to grant a sum of Rs. 4,000 for the purchase of a hydro-extractor, a sewing machine and a handfolding appliance. The Government were pleased to sanction this amount for expenditure in 1938-39.

The other difficulty in the working of the finishing plant efficiently was the inexperience of the staff employed, who failed to get from it a reasonable output and satisfactory quality of finish. The Government of India grant received by this province is so small that a qualified and experienced finishing master could not be appointed as yet. In the absence of an expert to conduct such an important experiment, satisfactory results cannot be expected to be achieved.

(*iv*) ***Marketing.***—The Bihar textiles were marketed through (1) commercial travellers, (2) subsidized sales depôts, (3) agents appointed both in India and in foreign countries and (4) the central warehouse at Gulzarbagh and the total sales effected during the year amounted to Rs. 1,69,197.

Our experience in trying to market the hand-woven cloth through commercial travellers was disappointing. While the travelling, carriage and other expenses were high, the sales were comparatively small and amounted to only Rs. 6,727 against Rs. 10,017 in the previous year. The services of one of the two commercial travellers had, therefore, to be dispensed with about the end of the year under report. An experiment to sell textiles through three educated youngmen appointed as hawkers on a salary of Rs. 25 each in addition to a commission of 10 per cent on the sales effected was tried at the close of the year and

the same was partly successful. Of the five sale depôts which existed at the beginning of the year, the one at Cuttack in Orissa was transferred to the Department of Industries of that province in October 1937 and a depôt was started in Calcutta with Messrs. Rameshwarlal Dedraj of Calcutta as sole agents for Bengal. The depôt at Bhagalpur was closed down, as the agent could not sell our goods. Although the salesmen appointed by the agents for these depôts were in many cases unemployed youths having no previous experience of salesmanship, the business transacted in these depôts amounted to Rs. 30,005 in value.

The 13 ordinary agents in India sold goods worth only Rs. 4,248 and of these Swadeshi Emporium, Madras, sold the largest quantity of Bihar textiles.

The value of goods exported to foreign countries amounted to £ 5,738 as against £ 7,937 in the previous year. The value of sales in London was about half of what it used to be in the previous years and amounted only to £3,105. This drop in European business was partly made up by the increased sales in New Zealand and Australia, in which countries the demand for Bihar textiles showed a distinct tendency to increase and the same amounted to Rs. 45,691 as against Rs. 31,267 in the previous year. A trial order from America for cotton goods worth Rs. 5,155 was also executed. Thus while the total foreign sales decreased from Rs. 1,15,084 in 1936-37 to Rs. 91,220 during the year under report, the Indian sales amounting to Rs. 77,977 increased by about 45 per cent and thus maintained the business at the same level as that of the previous year.

(v) *Publicity.*—The Bihar Cottage Industries continued to advertise Bihar hand-woven textiles widely and participated in the exhibitions held at Lahore, Delhi, Allahabad, Patna, Dhanbad, Bihta, Muzaffarpur, Darbhanga and Hajipur. The designs and workmanship of these fabrics were greatly appreciated and one gold, eight silver and ten bronze medals were awarded to Bihar textiles in different exhibitions. As in the previous years, the Bihar Government participated in the British Industries Fair and had a common stall with the United Provinces and Madras. Bihar textiles were also exhibited in the exhibitions held at Budapest, Vienna, Brussels, Utrecht and Leipzig through the Trade Commissioner of Hamburg. Sixty-five enamelled plates (of 3 ft. square in size) advertising the hand-woven fabrics of Bihar were displayed at important railway stations on the Eastern Bengal Railway, East Indian Railway, Bengal-Nagpur Railway,

and North-Western Railway. Publicity was also given to Bihar textiles through pamphlets, handbills and posters which were distributed in exhibitions and a few other places and also through advertisements in important newspapers and magazines and slides in cinema houses. The total expenditure on publicity was Rs. 6,771-11-0 of which Rs. 2,195-15-0 was on account of participation in the exhibitions and fairs. The cost of participation in the British Industries Fair, London, was paid from the revenues of the provincial Government.

(*vi*) *Expenditure.*—The total expenditure on the handloom marketing organization out of the grant from the Government of India amounted to Rs. 49,459-9-6 during the year 1937-38. This amount included the cost of some equipments purchased for Rs. 1,055 during the year and a sum of Rs. 6,328-15-6 spent by the Registrar of Co-operative Societies for the supervision and management of weavers' co-operative societies. As the grant from the Government of India was found to be inadequate, certain activities of the Bihar Cottage Industries had to be curtailed and the services of a few members of the staff dispensed with at the beginning of the following year.

42. *Government Wool Emporium, Gaya.*—For the development of cottage and small-scale woollen industries a marketing organization, viz., the Government Wool Emporium, Gaya, was started in April 1937 with a grant of Rs. 19,850 from the Government of India. This was later on supplemented by Rs. 6,000 from the provincial Government. Out of these grants, a sum of Rs. 15,000 was reserved for working capital required for the purchase of raw material, payment of wages, etc., and the balance was spent to meet the cost of establishment, advertisements, participation in exhibitions and fairs, contingent expenses, etc.

The technical staff of this organization consisted of a marketing officer with his headquarters at Gaya and five production overseers stationed at Gaya, Obra, Sasaram, Arrah and Chaibassa. One accountant, a store-keeper and a typist formed the office staff at the headquarters. A carpet weaver and a winder were also employed on daily wages to help the marketing officer in reproducing new designs of carpets, doormats and *asans*.

Manufacturing.—Thirty-four blanket and carpet weavers manufactured, under the supervision of the Production overseers, blankets, rugs, carpets, doormats, coatings, etc., of a total value of Rs. 7,716-2-0. This amount also included the cost of plain and coloured *lohis* of fine texture supplied by the Home Industries

Association, Khunti. In the office of the marketing officer, 14 designs of doormats and *asans* were woven and sent to the production overseers as samples. The weavers who all worked in their cottages and availed themselves of the help of their family members used their own hand-spun yarn in the production of hand-spun blankets. For the manufacture of rugs and blankets of superior quality, coatings and *lohis*, woollen and worsted yarn was purchased from Indian mills and 2,600 lbs. of the same were dyed in different colours under the supervision of the marketing officer, Gaya. The dyed and grey yarn was then supplied to the weavers in the villages through the production overseers along with indents and approved samples. Although necessary staff was employed in April, actual manufacture of goods was much delayed. Necessary funds were made available to the Wool Emporium in June. The raw material purchased from mills was dyed and despatched to the production overseers for weaving about a couple of months later. The fly-shuttle looms which had been introduced by the demonstration parties and had been lying idle had also to be fitted up before any blankets could be woven. Thus the actual production of goods was commenced just before the beginning of the season for the sale of woollen goods.

43. One of the outstanding features in the working of this marketing organization was the training of the "Hos" of the Singhbhum district in wool-shearing, spinning and weaving of druggets and *asans*. Till the starting of this organization, wool was being wasted in this part of the province. At the beginning, the aborigines, who, due to ignorance and superstition, erroneously believed that the sheep would die if they were sheared, strongly objected to the shearing of wool. The help of the district officials and "Mankis" or leaders of these aborigines had to be requisitioned in persuading them to get the sheep sheared. A few of these aborigines were then trained to spin the wool and also to weave coarse druggets and *asans*. Thus, in the course of only six months, i.e., the latter part of the financial year, as many as 16 charkhas and 10 drugget looms were introduced and worked.

(*i*) *Finishing.*—While hand-spun blankets were all milled by the weavers themselves in their primitive way, rugs and blankets of mill-spun yarn had to be sent to the Bhapalpur Jail for dyeing, milling and finishing. There was thus further delay in getting the woven goods ready for the market.

(*ii*) *Marketing.*—In spite of the above various difficulties, incidental to the starting of a new organization, the Wool

Emporium sold goods worth Rs. 3,340 during the year under report and credited a sum of Rs. 3,178 to the treasury. With a view to bring to the notice of the buying public these new classes of woollen goods, a sum of Rs. 374 was spent in advertising these goods in important newspapers—English, Urdu and Hindi—having a large circulation. They were also exhibited for sale in the *melas* held at Gaya and Sonepore and in the exhibitions of Allahabad, Lahore and Patna. The Emporium was awarded in these exhibitions one silver and one bronze medal and three certificates of merit. The sales depots of the Bihar Cottage Industries at Patna, Ranchi, Jamshedpur, Calcutta and Delhi helped this organization in not only advertising its goods but also in marketing the same. The gross profit earned by the Wool Emporium during the year amounted to Rs. 1,645 as shown in Appendix I.

IV.—Government of India grant-in-aid for the improvement of sericulture.

44. *Eri Seed-Supply Station, Ranchi.*—The "eri" seed-supply station at Ranchi continued to supply disease-free eggs to the "eri" rearers and also to conduct experiments with a view to evolve a more profitable and hardy race of "eri" worms. Eight acres of land were cultivated for the production of castor (six acres) and mulberry (two acres) leaves and 59 broods of eri and 26 broods of mulberry were reared. Out of 94,008 layings of eggs (of 260 eggs in each on an average) weighing nearly 1,200 ozs. produced during the year, 77,125 layings were supplied to the "eri" rearing instructors for distribution among the rearers in the districts of Bihar. Eight hundred and eight layings or about 10 ozs. of eggs were supplied to different parties belonging to Bombay, the United Provinces, Madras, the Punjab, Bengal, the Central Provinces and Berar, Orissa, Assam and Mysore and Rajputana States. As there was not sufficient demand for all the output of "eri" eggs, 15,378 layings were reported to have been destroyed. Necessary precautions will be taken in future to prevent such wastage. Incidental to the production of seed eggs, 2 mds. and 6 seers of cocoons (dried) were also produced but only 14 chhataks of yarn was spun.

The experiments in cross-breeding of lòcal "eri" moth with that of Assam Cynthia variety proved successful as the cocoons obtained were of larger size and of better quality. Other experiments in cross-breeding were, however, unsuccessful. The supervisor and his staff conducted demonstrations at the

exhibitions held at Ranchi and Khunti. The total cost of working the institution during the year amounted to Rs. 6,177 and was met from the grant of Rs. 6,213 received from the Government of India.

45. *Tasar-Seed Supply and Research station, Chaibassa.*—This station which was temporarily located in a rented house was removed to the new rearing shed built on the plot of land purchased during the year. Four hundred Asan, Arjun, Sal and plum seedlings were planted all round the rearing shed and were watered during the hot season. Rearing of *tasar* worms was continued on the trees of the neighbouring Goshala farm after pollarding 62 of them. Seed eggs were produced and 1,239 layings were distributed free of cost among the local rearers of the aboriginal class. It is reported that these rearers obtained decidedly better crops than what they could get with their own seed eggs ; 635 layings of eggs were also sold to a couple of local zamindars and Government departments of the Punjab, Bengal, the Central Provinces and Berar, Orissa and a few states in Rajputana. In producing seed eggs and conducting experiments, 5,055 cocoons were also obtained.

(*a*) *Experiments.*—Efforts to domesticate the *tasar* worms by feeding them on trays were continued. While these were successful in June, the rearings attempted in August and October failed as worms died of flacherie and grasserie. Feeding of worms on twigs or small branches of trees, kept in pots, was also attempted indoors but proved unsuccessful.

(*b*) For the separation of voltine characters and to ensure regular emergence, rearings were carried on trees with selected cocoons of Mugai and Daba varieties. Although the results obtained support the assumption that *tasar* worms are of trivoltine race, it is proposed to continue this experiment for a longer period before a definite pronouncement is made in this matter.

(*c*) To ensure regular emergence of moths from the cocoons, a number of the latter were cut and the pupæ were placed under a thin layer of sawdust. But the moths which emerged were found to be unhealthy and ill-developed.

(*d*) For experiments in hybridization, cocoons of *A Atlas, Acteas, Salene*, muga, eri, Chinese *tasar*, caltigula Simla and A Roylei were obtained from different places in India and outside. Of these only Roylei and muga mated with *tasar* male

and female moths. Two layings of eggs were obtained but only 20 out of 150 eggs hatched and only two cocoons were produced. These cocoons were, however, found to be superior to the Ampaṭia cocoons produced from local seed.

(e) Experiments in feeding *tasar* worms with leaves of different food plants such as plum and *sal* trees, and *sanai*, *patwa*, *Bilaiti patwa*, *madar* and *arhar* leaves were conducted and it was found that worms reared on plum and *sal* trees, *patwa* and *sanai* leaves yielded good cocoons, whereas those fed on *arhar* leaves produced cocoons of inferior quality. Leaves of *Bilaiti patwa* and *madar* were found to be quite unsuitable food for *tasar* worms.

46. *Propaganda outside the station.*—The staff of the station trained some of the local rearers in improved methods of rearing and in spinning of pierced cocoons. During the year 94 "Taklies", 132 "charkhas", five spinning wheels and one reeling machine were introduced and 61 pieces of *chaddars*, six of shirtings and one of coating were produced. Spinning of *tasar* is now being carried on in 171 villages. Attempts were also made to introduce *tasar* rearing in some new areas. About 100 layings of eggs were distributed among the "Hos" of Jamda Ilaka through the "Manki" but the production of cocoons was not satisfactory as these aborigines neglected the rearing work, when they got more profitable occupation in the mining concerns of the Tata Iron and Steel Company. A zamindar of Okla in the Ranchi district was helped in introducing *tasar* rearing in his zamindari. *Tasar* rearing had considerably declined in recent years on account of the low prices for cocoons. But since the latter are now sold at about double the prices obtained previously, it is hoped that a larger number of persons would start rearing with disease-free eggs supplied by this station.

47. Out of the grant of Rs. 4,472 received from the Government of India a sum of Rs. 4,031 was spent during the year against an expenditure of Rs. 5,074 incurred during the first year of the working of this station. As the rearers in other parts of the province found it difficult to get supplies of improved seed eggs and cocoons from Chaibassa, a proposal to start two sub-stations at Rakule jungle and Amrapara Hât in the Manbhum and the Santal Parganas districts respectively, was submitted to the Government of India and the latter were pleased to sanction for the current year an additional grant of Rs. 2,000 for starting these sub-stations.

48. *Miscellaneous.*—During the year under report the following new schemes for the improvement of cottage industries were also sanctioned :—

(*i*) In compliance with the request of the Bihar Branch of the All-India Spinners' Association for a subsidy required to help the improvement and development of hand-spinning and hand-weaving, Government sanctioned a grant of Rs. 12,500 and Rs. 17,500 for the year 1937-38 and 1938-39 respectively. These grants were and are being spent by the above association to organize the production of handspun and hand-woven cloth on a larger scale and also to extend the work in new areas. Of these a sum of Rs. 20,000 is to make good any loss due to defective work of beginners in new areas and also to pay adequate wages to the workers. The remaining Rs. 10,000 (Rs. 5,000 in each year) is for conducting research in the manufacture and distribution of improved implements among the workers and for training the latter in the use of the implements.

(*ii*) To develop the use of indigenous silk yarn in weaving silk fabrics in the place of cheap-spun silk imported from foreign countries, which in the past hampered the progress of the indigenous silk industry, Government sanctioned the installation of a silk-twisting plant at the Silk Institute, Bhagalpur, at a cost of Rs. 3,500 recurring and Rs. 15,000 non-recurring.

(*iii*) In compliance with a request from the Managing Committee of the Bihar Commercial Museum, started at Patna in August 1936, for a subsidy towards the cost of the museum and for the construction of a building and the addition of a library and reading room, Government sanctioned a sum of Rs. 3,760 recurring per annum for five years and Rs. 9,700 non-recurring or two-thirds of the total estimated cost of the museum with effect from 1938-39. The museum has for its object the development of commerce and industries in the province and for this purpose it demonstrates the industrial possibilities by displaying raw materials and manufactured articles and also charts giving useful information.

(*iv*) To help the women workers of the Jharia coalfields, who are excluded from underground work as a result of a recent legislation, in securing employment in cottage industries, a scheme to start two handicraft institutes at Jharia and Kustore was sanctioned. In these institutes women workers are now being trained in hand-weaving and basket-making at an estimated cost of Rs. 9,720 recurring and Rs. 840 non-recurring. To meet this cost for a period of three years, the Government of India have granted a sum of Rs. 30,000.

CHAPTER IV.

Industrial Engineering Service and Chemical Service.

I.—Industrial Engineering Service.

49. The work of the Engineering section consisted mainly in systematic inspection and maintenance of mills compounded with the department, installation of new factories and rendering technical assistance and advice to all industrial pursuits. The Circle Officers continued to attend to the work of systematic inspection and maintenance of mills compounded with this department. The practical help given by the department to industrialists was much appreciated. Technical assistance was also rendered to the Jails Department concerning jail industries. A few typical cases of assistance and advice rendered to some of the industrialists are noted below :—

(1) *Oil, Rice, Dal and Chatti Mill and Shellac Factories of Babu Bhagwati Prasad Agrawala, Pakur (Santal Parganas).*—The *dal* and *chatti* mills have been remodelled just on the lines of the imported *dal* mill of German make, complete with all elevators, round sifters and aspirators, which made a considerable saving in the price.

(2) *Shri Mahabir Dal Mills, P. O. Lakhisarai, Monghyr.*—All the round sifters and *chhanti* mills were made in the above mills.

(3) *Dal and Chhanti Mills of Messrs. Jhabarmal Mahabir Prasad, P. O. Sahebganj, Santal Parganas.*—All the round sifters, elevators and the *chhanti* mills were manufactured in the mill.

(4) *The Eastern Cutlery Works, Muzaffarpur.*—Advice was given to the owner for making safety arrangements in the factory.

(5) *Shew Parbati Dal Mills, Sultanganj, Bhagalpur.*—Advice was given to the owners for checking and correcting the general lay-out plans of the new *dal* mill with the power plant.

(6) *Turbine Oil and Flour Mill, Nasriganj.*—The teeth of pinion on the top of the water turbine were badly worn out and most of them were broken and there was also a noise at the bearing of the vertical shaft. Party's attention was drawn to these defects.

(7) *Shree Ramkrishna Mills, Dhanbad.*—A large number of defects were noticed in the Marshall's Double Cylinder steam-engine and were pointed out to the proprietor for their rectification.

(8) *Shree Surya Mills, Futwa.*—A number of defects were found in the Horizontal Double Cylinder engine of the firm and the defects were rectified.

50. The circle officers paid 279 visits to mills during the year under review. A list of mills compounded will be found in appendix K .... The receipt on account of services rendered by the department amounted to Rs. 2,177-2-0 against Rs. 2,186-6-0. The reasons for the fall in receipt are due to—

(1) Preoccupation of the Circle Officer, North Bihar Circle, and the officiating Circle Officer in two new erection and two remodelling of mills.

(2) Failure of crops for various grains specially *khesari*, *masoor*, *rahar*, etc. Therefore *dal* mills could not work continuously during the year. Some of the compounding mills were closed and compounding was discontinued.

(3) Sugar factories and other big mills have appointed their own engineers. Some local *mistris* at different centre take up work at a very small contract rate and the mill-owners get new erections and ordinary repairs done by them whenever necessary.

51. The Engineering section undertook the erection of the following machines :—

(1) Remodelling of Shri Jagdamba *dal* mill, P. O. Burhiya, district Monghyr.

(2) Erection of new power and milling plants of the *dal* and *chatti* mills of Messrs. Jhabarmal Mahabir Prasad, P. O. Sahebganj (Santal Parganas).

(3) Erection of complete Ice factory of 4½ tons capacity for Messrs. Shree Mohan Panna Lal Mills, Bhagalpur.

(4) Remodelling of *dal* mills of Babu Bhagwati Prasad Agrawala, Pakur (Santal Parganas).

II.—Industrial Chemical Service.

52. There was an appreciable increase in the work of the Chemical Adviser to Director of Industries. Two graduate stipendiaries were admitted for training in Applied Chemistry. Regular demonstration in soap-making, toilet preparations, phenyle, ink, etc., on cottage industries line were arranged as in previous year. The number of men trained was seven. In addition to this ten students were given demonstrations in soap-making, toilet preparations, mirroring, etc., at the Bihar Provincial Exhibition held in February 1938 and a first class certificate was awarded to the Chemical section for toilet preparations and demonstrations in washing soap.

The Chemical Adviser also visited the following laboratory and works in the year under report :—

(1) The Bihar Silica Mines, Biharshariff.

(2) Benares Hindu University Chemical Technological Department.

(3) The Bengal Pottreies, Ltd., Calcutta.

(4) Mysore Government Porcelain Factory and Mysore Government Soap Factory.

53. The Chemical Adviser continued to receive numerous enquiries regarding manufacture or otherwise of chemical articles. He was also called upon to carry on minor experiments and analysis. A few examples are given below to illustrate the nature of his work :—

(1) Analysis and report on the sample of ether sent by the Superintendent, Prince of Wales' Medical College.

(2) Advice on the uses of refined castor oil was given to a private party.

(3) Advice on the manufacture of condensed milk and other milk products was given to a party at Chapra.

(4) At a request of a firm ink was analysed and report submitted to them.

(5) Analysis of water, chlorine, chloroform, ghee, distilled water, clay, ink and butter were made and results were communicated to parties interested.

54. The Chemical Adviser has been empowered by Government to determine the sucrose contents of sugar manufactured by the sugar factories in Bihar in the event of dispute.

CHAPTER V.

Financial Assistance to Industries.

55. (*a*) *Working of the State Aid to Industries Act, 1923.*—A small provision of Rs. 6,000 was made in the budget estimate for this year with a view to advance loans to small industrialists not exceeding Rs. 500 in any one case. A number of formal applications were received, but no loan could be advanced during the year as all the applicants failed to give proper security. The proposals regarding reduction of the rate of interest charged on loans and acceptance of security, personal or otherwise, of a third party were under the consideration of Government.

The statement below shows the outstanding dues under the State Aid to Industries Act :—

Nature of the State aid.	No. of cases pending.	Amount standing at the begining of the year.		Amount due to be realized during the year.	Amount actually realized during the year.	Balance standing at the end of the year.
1	2	3		4	5	6
			Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Loan	1	Principal ...	9,209 12 6	3,069 14 10	Nil	9,209 12 6
		Interest* ...	Nil	Nil	Nil	Nil
Hire purchase ...	2	Principal ...	7,746 15 7	7,203 2 7	†6,692 10 4	1,054 5 3
		Interest ...	68 8 6	68 8 6	Nil	68 8 6
Total ...	3	Principal ...	16,956 12 1	10,273 1 5	6,692 10 4	10,264 1 9
		Interest ...	68 8 6	68 8 6	Nil	68 8 6
Cash credit ...	1	Principal ...	1,000 0 0	500 0 0	310 0 0	690 0 0
		Interest ...	Nil	10 3 2	10 3 2	Nil

*Interest remitted by Government.

†Includes Rs. 5,192-10-4 written off by Government.

Out of Rs. 10,341-9-11 due for realization during the year, only Rs. 1,500 could be realized by sale of button-making machinery at Mehsi and a sum of Rs. 5,192-10-4 has been since written off by Government on that account. The arrears dues include the sum of Rs. 3,648-15-7 on account of Babu Basanti Charan Sinha and the Dal Mill at Burhiya. A further sum of Rs. 1,543-12-1 has been paid by the Official Liquidator of Vishwakarma Mills being the final dividend declared by the Patna High Court.

(*b*) *Progress of State-aided industrial enterprises.*—

(*1*) *Loan to a fruit canning industry.*—The loanee failed to pay the sixth instalment of Rs. 3,069-14-10 and submitted petition to write off the amount. The request of the loanee was under consideration when the year closed.

(*2*) *Machinery for button-making.*—As mentioned in the last year's report, the button-making machinery were sold to Messrs. Jessore Comb and Celluloid Works, Jessore, Bengal, for Rs. 1,500. The loss over this transaction amounted to Rs. 5,192-10-4.

(*3*) *Dal Mill at Burhiya.*—An extension of one year was granted to the party for the instalment which fell due on 18th October 1937.

(*4*) *Vishwakarma Mills, Ltd.* (*under liquidation*).—As mentioned in the last year's report a final dividend of Rs. 1,543-12-1 have been received from the official liquidator of Vishwakarma Mills, Ltd. (in liquidation).

(*5*) *Cash credit to a rice-milling industry at Bersot.*—The instalment could not be realized as Maulavi Moinuddin Ahmad, the recipient of the cash credit, died. His heir has promised to pay the outstanding by the month of July 1938.

(*c*) *Activities of the Board of Industries.*—As there was very little work for the Board of Industries, no meeting was held during the year. On other matters the Board was consulted by correspondence.

CHAPTER VI.

Fisheries.

I.—Carp-Fry Distribution and Pisciculture.

56. In the fry-distribution operation of the Department, two centres, viz., the Patna fry-distribution centre and the

Ranchi experimental fry-distribution centre worked during the year under report. The total quantity of fry supplied was 184,000 as against 272,100 of the previous year. The decrease is principally due to a sudden disastrous rainfall which overflooded the rearing tank at Ranchi and thus brought to an end the fry-distribution work which had started immediately before the rainfall.

The quantity of fry supplied from each of the above centres is as follows :—

			1936-37	1937-38
Patna ..	..	..	193,500	166,000
Ranchi ..	..	..	78,600	18,000
	Total	..	272,100	184,000

The supply from the Patna centre decreased by about 16 per cent. This was due to the continued drought which prevailed throughout the month of July preventing many tank owners from stocking fry, their tanks holding but insufficient water for the purpose.

The Bombay Government again took a supply of 10,000 fry and deputed a man to carry the consignment to Bombay which reached there in excellent condition.

The Khasmahal tank near the Bankipore lawn which is one of the tanks in which spawn of the Patna centre is reared became unfit for rearing, the water having become foul. Government was approached and sanction to dewater and re-excavate the tank at a cost of Rs. 500 was received. The work has since been carried out though the re-excavation could not be fully completed owing to early heavy rainfall.

In the light of experience gained from the transport of spawn and rearing of the same in Ranchi better arrangements were made for the running of that centre. The spawn of the Ganges and the Sone, which though available in large quantities and had not been previously used for stocking tanks in Chota Nagpur, was transported successsully to Ranchi and reared there more satisfactorily than in the previous year. A good beginning was made of the fry-distribution work but owing to sudden heavy rainfall the tank was overflooded, and further work was frustrated. Government have since sanctioned a sum of Rs. 500 for cutting a drain and making sluice gates, etc., for the tank. The work has been undertaken and is expected to be finished soon. A quantity of only 18,000 fry was supplied from the Ranchi centre.

The great difficulty that is experienced in running the Ranchi centre is the absence of any permanent staff there. While the work requires scientific knowledge, training and experience the department has to carry it with a low-paid new man temporarily appointed for about three months who has necessarily not the scientific knowledge or training and experience. Chota Nagpur has immense potentialities for pisciculture but the spasmodic manner in which the problem is tackled at present leaves much to be desired. Government were approached for appointment of a Science graduate as Inspector of Fisheries to start with, but unfortunately provision for the same could not be made in the current year's budget.

Although the rearing of spawn in Ranchi was more satisfactory than that of the previous year, its rate of growth compared very poorly to that in Patna. The question of scientific enquiry regarding the soil deficiencies of Ranchi could not be taken up as was mentioned in the last year's report. It is proposed to be taken up during the current year.

The transport of fry to destinations from the fry-distribution centres was satisfactory. Almost all the tanks that were stocked with fry supplied by this department were inspected by the officers, and the owners thereof were advised to take such measures as were necessary for success. The number of these tanks together with those that were inspected during propaganda work or at the request of the owners was 80.

The Superintendent, Central Jail, Buxar, was again supplied with 2,200 larvicidal fish. After a prolonged negotiation and correspondence the Jharia Water Board has decided to stock the Topchanchi lake with larvicidal fish and carp fry from the sanitary point of view.

The Fisheries section participated in the following exhibitions where fishery exhibits were displayed, demonstrations given and propaganda on behalf of pisciculture was made :—

(1) Purnea *Mela* Exhibition.

(2) Patna College Commemoration Day Exhibition.

(3) Bihar Provincial Exhibition, Patna.

(4) Dhanbad Exhibition.

II.—Export of Fish.

57. The export trade of fish of Bihar records yet another year of rapid progress which is an indisputable index to the developing fishing industry of the province. The total export

of fish during the year was 72,684 mds. as against 55,113 mds. in the previous year. The enormous growth of the industry will be evident from the fact that the export of fish five years ago was only 29,671 mds. It is the North Bihar fisheries which largely accounts for the growth. The export of fish by the Bengal and North-Western Railway was 59,716 mds. against 42,816 mds. in the preceding year and by the East Indian Railway 12,968 mds. against 12,297 mds. in that year. It may be noted here that the whole of North Bengal is supplied with fish from North Bihar. There is a good deal of room for improvement in this export trade and the fish merchants were given advice from time to time by the officers of the department. It is also a happy sign that young educated Biharis are interesting themselves in this fish trade and a few have already taken to it. The department gives them all possible help and advice.

CHAPTER VII.

Labour.

REVIEW OF LABOUR CONDITIONS IN BIHAR IN 1937-38.

58. *Introductory.*—As reported in the last year's report, definite statistical information relating to labour employed in rural and unorganized industries of the province being not available, this comparative review is confined chiefly to the labour employed in organized industries. In the year 1937-38, the development of the sugar industry in the province, and the new enterprises inaugurated by Messrs. Rohtas Industries, Ltd., at Dehri have greatly widened the scope for the employment of labour in Bihar. During the year under review, about 5,091 skilled and unskilled labourers were employed in the sugar, cement and paper factories of the Rohtas Industries alone. With the further development of the industries started at Dehri, a larger number of persons is likely to be employed.

Among the organized industries of the province, mining continued to be the most important, the valuable products of which are coal, iron-ore and mica, chiefly found in the Chota Nagpur Division. The table below will show that there was a steady increase in the employment of labour in the coal and mica mines, while in the iron-ore mines there was a decrease :—

Mines.	1935	1936	1937
(1) Coal	92,419	94,477	103,081
(2) Mica	20,171	20,133	23,473
(3) Iron-ore ..	7,594	12,615	10,906

Next to these come the copper-ore mines which gave employment to 3,122 labourers as against 2,878 labourers in 1936.

59. The next in importance in the matter of employment of labour are the metallurgical industries, of which the Tata Iron and Steel Company, Ltd., at Jamshedpur continued to be the largest single establishment in this province. During the year under report the average number of persons employed daily by this Company was 28,004. The Tinplate Company of India, Ltd., Golmuri near Jamshedpur, showed a further increase in the labour force in their employment from 3,031 on the 31st December 1936 to 3,140 on the 31st December 1937 and the number of skilled and unskilled labour employed by the East Indian Railway Workshops at Jamalpur was 6,943 in 1937-38 as against 7,089 in 1936-37.

60. *Wages.*—As usual the rates of wages varied from place to place and class to class. The wages of the industrial workers were generally higher than those of agricultural workers. During the year under report, the rates of wages in the mica mines in the district of Hazaribagh increased by about 15 to 20 per cent, while the rates of wages in other mines of all the districts including Hazaribagh remained more or less stationary. In the district of Manbhum the system of weekly payment of wages continued and payments were not unnecessarily delayed. The wages paid to the coolies in the mining areas of Singhbhum continue to be inadequate. The supply of labour in most cases is more than the demand and the large seasonal influx of labourers from the Orissa States and from some of the districts of Central Provinces does not tend to improve wages. A male cooly gets 3 annas to 3 annas 6 pies a day and a female cooly gets only 2 annas to 2 annas 6 pies a day. The raising contractors very rarely observe the provisions of the Indian Mines Act. Supervision is slack, and aboriginal labour in the mining areas has no organization, no trade unions, and no leaders with the result that it is fully exploited by labour contractors who are mostly non-Biharis.

61. *Indebtedness of labourers.*—This is a problem that is assuming staggering proportions. In large centres like Jamshedpur and Musaboni the money-lender is all powerful. Once in debt, always in debt is the fate of thousands of labourers. Habits of thrift and prudence are not general and the attractions of city life in large industrial centres combined with the facilities for borrowing that at present exist are hardly conducive to the promotion of such habits. In Jamshedpur there is a common

saying that the doctor is never found when required, the policeman is always absent from the spot, the magistrate is busy in courts, the General Managers are rarely accessible but the money-lender is always at hand. And so, the labourer borrows and borrows from one money-lender after another and ends at last in the insolvency court. An examination of the records of some of the insolvency cases will reveal pathetic stories of hard-working labourers caught in the meshes of the money-lender with no chance of escape.

Another distressing feature is the practice in vogue of some of the supervising staff carrying on money-lending either themselves or through *benamidars*. They lend money to the labourers working under them, are never keen to realize the principal but are content with the exorbitant interest that they generally get on pay days. No receipts are granted, if the labourer protests his work is found fault with and the result is that the labourer pays interest month and month and year after year without a demur. The indebtedness of labourers requires careful examination.

62. *Health and sanitation.*—The general health of the labourers in Manbhum, Singhbhum and Hazaribagh was reported to be fair. The outbreak of cholera and small-pox in Manbhum was reported to be of a sporadic nature. In the district of Singhbhum, the prevalence of malaria decreased to a certain extent due to improved sanitation and on account of anti-malarial measures adopted in some camp areas. In the other districts the general health of the labourers continued to be fairly satisfactory.

63. *Housing.*—Housing conditions specially in the large labour colonies in Singhbhum continue to be unsatisfactory. Big companies like Tatas and Indian Iron and Steel Company have done something in this respect but the smaller concerns are content to put up a few *kutcha* huts where labourers live in promiscuous confusion.

64. *Educational facilities.*—Except in large industrial centres like Jamshedpur, educational facilities especially in the mining areas in and around Gua, Noamundi and Maudharpur are practically nil. The industrial concerns are content to leave things as they are, with the result that labourers and their children continue to live in ignorance. Labour must be educated before accidents diminish, sickness drops and cleanliness begins to count.

65. *Strikes.*—The year under review was characterised by a general restlessness in the labour world. This was partly due to expectations raised by political changes, by the emergence of political leaders in the labour area, who would otherwise have been content with mere political agitation and by the systematic failure of certain industrial concerns to generously deal with genuine grievances. There were eleven strikes in Bihar as against five in the previous year. The strikes are noted below district by district :—

(*a*) *Strike at the Moubhandar Copper Factory of the Indian Copper Corporation, Ltd., at Ghatsila, Singhbhum.*—On the 29th March 1937, 40 Punjabis of the Moubhandar Copper Factory of the Indian Copper Corporation Ltd., at Ghatsila filed two petitions stating that they were ill-paid and were not being treated properly in the matter of leave, etc., and struck work. On the 30th about 900 workers, both male and female, out of the total strength of 1,200 went on strike and on the 31st the number of strikers rose to 1,000. On the strikers showing a defiant tendency to violence an order under section 144, Cr. P. C., was promulgated. The General Manager of the Company proposed to appoint a conciliation board with the concurrence of the strikers to investigate the whole question. On the 1st April, the strikers put forward a written list of grievances to the General Manager. The reply given by the General Manager did not satisfy the militant section of the strikers and they deliberately elected to disobey the orders promulgated under section 144, Cr. P. C., which created a serious situation on the afternoon of the 1st April 1937. The unlawful assembly was dispersed by a mild *lathi* charge. The strikers as a body resumed work the next day. The result of the strike was not satisfactory to the labourers though some of the skilled workers got an increase in their wages.

(*b*) *Strike at the Kyanite Mine, Ghatsila, Singhbhum.*—Demanding higher wages, 200 coolies of the Kyanite Mines of Messrs. Bird and Company at Mohanpur, Ghatsila, Singhbhum, went on strike on the 25th March 1937. The strikers were peaceful and from the second day of the strike many of

them began to resume work as the management increased the rate of wages in several cases and the strike actually terminated on the 3rd April 1937. The strikers got an increase in their wages.

(c) *Strike at Noamundi Iron-Ore Mines, Singhbhum.*—A strike involving 2,088 workers out of the total strength of 2,353 occurred on the 8th June 1937 in the Noamundi Iron-Ore Mines, Singhbhum, without giving notice to the management. Low wages, inadequate house accommodation and ill-treatment by superior staff were the causes of the strike. It was shortlived and terminated in the morning of the 9th June on the Labour Superintendent promising to redress their grievances.

(d) *Strike at the Tatanagar Iron Foundry, Jamshedpur.*—The strike occurred on the 7th July 1937 in the Sleeper Moulding department of the Tatanagar Iron Foundry, Jamshedpur. On the day, the strike commenced, only 28 persons were involved but later on the number of strikers rose to 1,200. It terminated on the 2nd August 1937. The immediate cause of the strike was that, in order to check the defects pointed out by the Railway authorities in the quality of sleepers turned out, the Manager of the foundry ordered the sleeper moulders to work, as a temporary measure, only half time on half the usual wages. This the 28 sleeper moulders refused to do and went on strike. A general strike involving 1,200 workers followed. As usual a general statement of grievances followed. As a result of mediation by the Deputy Commissioner of Singhbhum an amicable settlement was arrived at on the 2nd August 1937. The management declared the day as a holiday and gave the strikers about Rs. 50 for a feast. The strikers got the starting rate of wages for the coolies and *rejas* raised from 6 annas and 4 annas to 6 annas 6 pies and 4 annas 6 pies respectively, and also secured to some extent an improvement in other conditions. The strikers lost 23 days' wages for no strike wages were paid.

(e) *Strike at the Indian Steel and Wire Products, Ltd., Jamshedpur.*—The proprietor of the Indian Steel and Wire Products, Ltd., Jamshedpur, sanctioned a bonus of one month's pay for the skilled

hands and of half a month's pay for the unskilled labour. Demanding the former rate of bonus, about 150 coolies and 100 *rejas* employed by the Company struck work on the 2nd August 1937. The number of strikers subsequently rose to about 826 including 50 skilled workers out of the total strength of 1,695. The strikers approached the Labour Federation, and Mr. Homi, President of the Labour Federation, took up the cause of the strikers and made various unsuccessful attempts for settlement. The management refused to come to terms, and by recruiting unskilled hands resumed normal work by the end of January 1938. Picketing continued until 10th March 1938 in a half-hearted way. Many of the strikers, not getting adequate support from the Labour Federation, went home or secured employment elsewhere. The strike was a complete failure and this was due to the obstinacy of the Labour Federation in insisting on impossible demands.

(*f*) *Strike at the Coke Ovens of the Tata Iron and Steel Company, Jamshedpur.*—Demanding higher wages, 80 coolies and *rejas* working under a sub-contractor in Coke Oven Department of the Tata Iron and Steel Company, Ltd., Jamshedpur, went on strike on the 4th October 1937. After discussing their grievances directly with the contractor on the 15th October 1937 and finding that they had no hope of obtaining any increase in wages, the strikers returned to work on the same day on the condition that they should be given full week's work in consideration of their long service.

(*g*) *Strike at the Chandil Lac Factories, Manbhum.*—Demanding an increase in the wages from Rs. 1-5-0 to Rs. 1-9-0 per day, 188 workers of the Chandil Lac Factories, Manbhum, went on strike on the morning of the 4th May 1937. At a meeting of the strikers held on the 22nd May 1937, they decided to rejoin work at the usual rate of wages. The strike was peaceful and ended on the morning of the 25th May 1937.

(*h*) *Strike at the Kustore Colliery, Dhanbad, Manbhum.*—A strike involving 300 workers out of the total strength of 1,800 occurred on the 16th October 1937 in the Kustore Colliery, Dhanbad. The

causes of the strike were (*i*) demand of higher wages to compensate the loss in the total earnings per family of the miners due to the elimination of female labour from underground work, and (*ii*) an assault on a sardar by the Assistant Manager of the colliery. A compromise was effected by increasing the rate of wages for raising coal from Rs. 1-6-0 to Rs. 1-14-0 and Rs. 1-10-0 to Rs. 2 per tub.

(*i*) *Strike at the Kumardhubi Works of Messrs. Bird and Company.*—A workman of the Eagle Rolling Mills of Messrs. Bird and Company at Kumardhubi, Manbhum, was dismissed for unsatisfactory work. The remainder of the workers numbering about 400 demanded his reinstatement and declared a strike on the 9th February 1938. The workers of the other two works, namely, Kumardhubi Engineering Works and Kumardhubi Fire Clay and Silica Works, numbering about 1,700 and 1,400 respectively, under the same agency, namely, Messrs. Bird and Company, joined the strikers of the Eagle Rolling Mills in sympathy on the 1st March 1938. The strikers demanded the same facilities and an increment of wages as granted at Kulti, Hirapur and Jamshedpur. The strike continued when the year under report closed.

(*j*) *Strike at Messrs. Dalmia and Company's Paper Mills at Dehri, Shahabad.*—Three hundred workers of the Messrs. Dalmia and Company's Paper Mills at Dehri, Shahabad, struck work on the 20th February 1938. The grievances of the strikers were (1) the treatment meted out by Mr. Dalmia, (2) the refusal of gazetted holidays, (3) excessive working hours and (4) failure of the supply of water. An amicable settlement was arrived at and the strikers resumed work on the 5th March 1938 on the understanding that their grievances would be referred to the Provincial Labour Enquiry Committee.

(*k*) *Strike at the Portland Cement Factory at Japla, Palamau.*—A short-lived strike, involving 876 persons, occurred at 7 A.M. on the 28th October 1937 at the Sone Valley Portland Cement Factory at Japla, Palamau. The causes of the

strike were (1) dismissal of five Bihari *mistries* due to disobedience of orders and for inciting others to disobey similarly, (2) withdrawal of concession of free fuel to labour, (3) communal tension between Bengali and Bihari members of the staff owing to partiality of the management to Bengalis in the matter of appointment, treatment, etc., and (4) unsatisfactory housing condition in labour lines. The strike terminated at 3 P.M. on the 29th October 1938 on the conditions noted below :—

(1) Reinstatement of the five dismissed mistries, (2) no penalization of the strikers, (3) withdrawal of the police force from inside the factory, other demands such as 80 per cent recruitment of Biharis in the subordinate staff, improvement of housing conditions, security of service, etc., were considered after the strike had been called off and amicably settled to the satisfaction of both parties.

Review of cost of living of the working classes during 1937-38.

66. The cost of living of the working classes in the first month of the year 1937-38, as compared with the corresponding month of the previous year, was higher by 2 points at Muzaffarpur and lower by 11 points at Ranchi, by 8 points at Patna, by 3 points at Jharia, by 2 points at Jamshedpur and by 1 point at Monghyr. As in the preceding years, the seasonal rise and fall during the year was not marked. In the last month of the year, i.e., in March 1938, the percentage of fall below the pre-war normal period was 18 at Ranchi, 11 at Muzaffarpur, 4 at Monghyr and 3 each at Patna and Jharia, while there was no variation at Jamshedpur. The average cost of living for the whole year under report was higher by 3 points at Patna and lower by 4 points at Monghyr, by 3 points each at Jharia and Ranchi and by 1 point each at Muzaffarpur and Jamshedpur. Ranchi was the cheapest centre for a workman to live in, while Jamshedpur was the dearest.

CHAPTER VIII.

Commercial and Industrial Intelligence.

67. The work of furnishing information to Government departments and the public in all matters relating to commerce,

trade, industries and other economic and industrial problems continued to be carried on by this section of the department. The number of enquiries received by the department on this score greatly increased. A large number of persons came personally to the office and were supplied with the information required by them. All these indicate that the services rendered by this section are being greatly appreciated by the public. Enquiries received and dealt with in the office may broadly be classified into the following groups :—

(1) Figure of import and export of raw materials as well as of finished goods.

(2) Names and addresses of industrial concerns manufacturing or dealing in particular goods in and outside the province.

(3) Request from firms to bring their goods to the notice of the consumers.

(4) Enquiries regarding financial standing, business reputation, etc., of firms.

(5) Enquiries as to the prospect of starting new industries.

(6) Miscellaneous enquiries.

68. In order to illustrate the wide range of references received, it may be mentioned that they include enquiries regarding—

Electric fittings, umbrella ribs, caps and other iron materials for umbrellas, graphite crucibles, metal drums, surgical dressings, nitro benzene, wooden diprods, wire nets of copper, brass, etc., synthetic organic chemicals, lozenges, tonka beans, burnt ivory chips, citrate of lime, casein and milk products, munj, straw baskets, cabinet, safety pins, paper clips, buckles, sewing needles, shoe lace, hair pins, etc., carbon rods for dry battery, cotton mercerised silk and woollen yarns, lignite pits, Fahrenheit thermometers, potassium nitrate, goldsmiths' tools, collapsible tube, transfer labels, fur felt and wool felt, Rayon and caustic soda, malt, cheese, celluloid works, absolute alcohol and rectified spirit, steam coal, blasting fuse, blasting gelatine, dynamite, gelatine dynamite, toys from tin-sheets, electrical accumulations, steel balls, manufacturing jewellers, toilet and washing soap,

cement tiles, crude wax, condensed milk, manufacture of tal-misri, or sugar candy from palm juice, silicate of soda, pith hats and tin toys, chalk crayon, polang oil, phenyle, pills and tablet-making, fret-saw, ghee merchants in India, buyers of manganese-ore in India, dealers in textile machinery, manufacture of tin, fruits, hurricane lanterns, etc., etc.

69. *Library.*—The library attached to the department is equipped with books and publications dealing in engineering, science, labour, industry, trade, fishery and other allied subjects, besides a number of other reference books and encyclopædia. Several industrial and technical journals are also received in the library. The library continued to be visited almost daily by businessmen and industrialists and other persons interested in technical subjects. A number of useful books were added to the library bringing the total number to 1,900. This number does not include bulletins and other reports. In the year 1937-38 the number of persons who visited the library was 1,265 against 1,150 in the previous year and 363 books were issued for reference.

CHAPTER IX.

Review of the economic position of the principal industrial concerns in Bihar in the year 1937-38.

70. *Coal.*—There was a marked improvement in the coal industry, and the demand for coal was good throughout the year. From April 1937 until the end of the year the prices increased. The output of coal increased from 12·02 million tons to 13·84 million tons.

71. *Mica.*—As compared with the previous year, the mica trade showed a further improvement, the export from the Calcutta port being 134,425 cwts. in 1937 as against 99,491 cwts. in 1936.

72. *Manganese-ore.*—During the year 1937, the demand for manganese-ore in Japan remained steady and the prices increased, but, owing to the Japanese Government enforcing stricter import licence conditions, shipments were restricted. The European market declined rapidly towards the end of the year.

73. *Iron and steel industry.*—With the exception of some blast furnaces, which were shut down for short periods for relining, and the sheet-mills, which were put on short time for a while owing to the scarcity of orders, the plant was maintained in full operation throughout the year 1937-38. The production of pig iron and saleable steel during the year was 921,300 tons as against 827,077 tons in 1936-37 and 660,378 tons as against 166,930 tons in 1936-37 respectively. On the construction side, a new Power Plant was practically complete at the end of the financial year. The construction of a second battery of the Coke Ovens was progressing well. A new Control and Research Laboratory was completed during the year.

74. *Tinplate industry.*—The output of Tinplate Company of India, Ltd., Golmuri, increased from 56,450 tons in 1936 to 60,360 tons in 1937, which was the highest figure yet recorded. The total quantity of steel worked out during the year was 74,430 tons, and the average number of labour daily employed was 2,887 as against 2,892 in 1936.

75. *Wire nail industry.*—This industry continued to flourish during the year under review. The plant of the Indian Wire and Steel Products was extended.

76. *Engineering Works.*—During the year ending March 1938, the foundry and machine shop of the Kumardhubi Engineering Works were very slack to begin with but improved considerably during the second half of the period. The structural shop was very slack but before the end of the period some large orders were received which kept the department busy for some time. The work was entirely closed during March, 1938, on account of strike.

77. *Lac industry.*—In the year 1937-38 the position of the lac industry was not encouraging. The total production of stick lac in India decreased from 1,622,500 mds. in 1936 to 1,264,900 mds. in 1937, i.e. about 25 per cent less than that in the previous year. The total export during the year was also less by about 20 per cent than that for the same period of the previous year. The decrease in export was due to the fact that the consumers had purchased, in the previous year, larger quantities than what were necessary for immediate consumption and held stocks for future use. Besides, the index of American Industrial activity, which reflected immediately on the shellac export position, tended to be rather low during the last several months of the year under report. However, the total export of 665,000 cwts. represents more than an averge figure of exports for the

last ten years. The total value decreased from Rs. 23·5 millions to Rs. 16·1 millions showing a decrease of about 31 per cent which was disproportionately large as compared with the percentage of fall in the volume of export.

78. *Milling industry.*—Rice milling industry did not show much improvement. Owing to partial failure of the paddy crop in certain parts of the province supply of paddy was not at all satisfactory and some of the mills had to be closed.

The working of the oil milling industry showed some signs of improvement in the beginning of the year but it could not be maintained as the price of oil-seeds rose disproportionately high to the price of oil. The condition of the flour milling industry remained practically unchanged.

CHAPTER X.

Information Bureau.

79. The Information Bureau now known as Employment Bureau was started on the 1st March, 1935, on an experimental basis for a period of two years in the first instance. It has now completed the third year of its working.

The work of the Information Bureau can be broadly classified under the following headings :—

(1) Registration of the names of candidates possessing both general and technical qualifications.

(2) To find ways and means for the employment of the candidates registered in the Bureau.

(3) To give publicity to the vacancies occurring in the various railways running through the province and also the vacancies advertised by the Federal Public Service Commission and by the various Government departments.

(4) To advise students and their guardians in regard to prospects in different industries and professions.

The Bureau registered the names of as many as 1,915 candidates possessing different qualifications.

80. The Bureau addressed 1,129 industrial concerns situated in the province of Bihar and those situated outside but having

interest in the province besides the railways, viz., East Indian Railway, Eastern Bengal Railway, Bengal-Nagpur Railway, Bengal and North-Western Railway and the Light Railways.

As a result of the efforts made by the Bureau requisitions for 1,248 posts were received mainly from the factories and the Railways and 330 persons were provided with employment. Out of them 162 got permanent posts and 168 were taken in as apprentices with a view to absorb them in future vacancies on completion of their training. The figures of appointments given are not complete inasmuch as a large number of men who secured appointments on the recommendation of the Bureau failed to intimate the fact of their being employed. The main reason why only 330 persons were employed against the requisitions of 1,248, is that the Rohtas Industries, Limited, Dehri-on-Sone, sent requisitions for no less than 600 posts against which only 19 appointments were made by them. The Bureau at present does not only keep the employees and the employers in touch with each other but in majority of cases it has nominated suitable candidates for appointment. In doing so it has to interview and test candidates before they are recommended. The results achieved so far have been fairly satisfactory. The increase in the number of requisitions received shows the growing popularity of the Bureau both amongst the employers and the employees.

81. Hitherto one of the reasons why Biharis failed to get appointments in the railways was that they had no information of the vacancies occurring in them. With the inauguration of the Bureau all the railways running through the province except the Bengal and North-Western Railway and the Light Railways have been sending their advertisements to the Bureau and wide publicity to the same is given. It has been noticed that sometimes the time allowed for applying for a particular post in the Railways being short a large number of candidates failed to take advantage of the same. Accordingly the Railways were approached and they have been pleased to supply application forms to the Bureau which are now distributed in time among intending candidates. The Telegraph Department has also begun to co-operate with the Bureau and they have appointed a few men on its recommendation.

82. A large number of enquiries have been received from candidates and their guardians as to prospects in different industries and professions and they have been attended to. The activities of the Bureau have increased and they will increase further as its importance is being realized by the general public.

CHAPTER XI

Conclusion.

83. The Honourable Minister for Development accompanied by Mr. S. M. Dhar attended the Ninth Industries Conference held at Lahore in December 1937. They also attended the meetings of the Imperial Sericultural Committee and the Woollen Industry Committee and the All-India Exhibition of Arts and Industries which were held at Lahore at the same time. The third meeting of the Industrial Research Council which was held in Bombay in July 1937 and of the Central Boilers Board and of Central Electricity Board held in Delhi in January 1938 were also attended by Mr. Dhar.

The increased activities of the Information Bureau, the administration of new schemes for the development of head-weaving industry and the tanning industry, besides the work of the Employment Board which was carried in the year under review placed much heavy burden on the department.

In spite of this additional work, the general standard of efficiency was maintained throughout during the year. Thanks are due to all officers and assistants who have done their duties well.

APPENDIX A.

Table showing the nett expenditure of the department for the year 1937-38.

I. Direction :—

	Rs.
(a) Director of Industries	28,600
(b) Textile Expert and the Intelligence Officer	16,283
(c) Office Establishment	29,852
(d) Travelling allowance—	
(i) Charged	3,288
(ii) Voted	3,687
(e) Other allowance	31
(f) Contingencies (Non-contract)	4,706
Total ..	86,447

II. Technical and Industrial Education :—

(i) Technical Education :—

(a) Bihar College of Engineering	1,79,170
(b) Ranchi Technical School	62,240
(c) Tirhut Technical Institute	40,106
(d) Evening Mining Classes	14,134
(e) Dehri apprentice class	1,781
(f) Grant-in-aid to Technical Institutes ..	11,517
(g) Stipends and cost of seat reservation for Bihar.	20,489
Total ..	3,29,437

(ii) Industrial Education :—

(a) Cottage Industries Institute, Gulzarbagh ..	66,609
(b) Silk Institute, Bhagalpur	31,631
(c) Wool Weaving Institute, Gaya ..	6,424

	Rs.
(*d*) Half-time Weaving School, Bihar ..	3,489
(*e*) Printing and Book-binding Classes, Gulzarbagh.	7,478
(*f*) Grants-in-aid to Industrial Institutes ..	8,924
Total of Technical Education	1,24,555
Total of Technical and Industrial Education	4,53,992
III. Industrial Development :—	
(1) Engineering Service	15,328
(2) Industrial Chemical Advice	3,000
(3) Fisheries	9,321
(4) Textile Demonstration :—	
(*a*) Weaving Demonstration	30,846
(*b*) Dyeing Demonstration	5,108
(*c*) Wool Weaving Demonstration.. ..	2,184
(*d*) Rope-making Demonstration	2,087
(*e*) Sericulture	13,725
(5) Manufacture of cotton goods for foreign markets.	1,72,043
(6) Marketing organisation	41,243
(7) Small Cottage Woollen Industry.. ..	20,848
(8) Expenditure in connection with Sugarcane Acts.	53,377
(9) Grant-in-aid—Subsidy to the Bihar Branch of the All-India Spinners' Association.	12,500
Total ..	3,81,610
Grand total ..	9,22,049
Less receipts ..	2,96,876
Net expenditure ..	6,25,173

APPENDIX B.

(*Vide* paragraph 3 of the report.)

Statistics of Technical and Industrial Education during 1937-38.

Serial no.	Names of Institutions.	Place.	Courses taught.	Capcity.	Average attendance.		Examinations.					Net expenditure from Provincial Revenue.	Cost per pupil on roll.
					On roll.	Present.	Appeared.	Passed.	Percentage.	Passed final year.	Pass percentage.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Government Technical Institutes.											Rs.	Rs.
1	Bihar College of Engineering.	Patna ...	Civil Engineering (Degree), Civil Engineering Subordinate, Industrial Diploma, Pleaders' Survey class, Munsifs' training.	335	273	239	272	233	85·6	57	70·4	1,46,336	536·00
2	Tirhut Technical Institute.	Muzaffarpur.	Industrial Diploma, Leather working, Oil-engine driving class.	140	93	81	83	81	97·6	18	90·0	36,866	396·40
3	Ranchi Technical School.	Ranchi ...	Industrial Diploma, Improvers' class, Leather working class.	173	169	158	130	77	59·2	35	75·0	57,105	337·90

APPENDIX B—*contd.*

Serial no.	Names of Institutions.	Place.	Courses taught.	Capacity.	Average attendance.		Examinations.					Net expenditure from Provincial Revenue.	Cost per pupil on roll.
					On roll.	Present.	Appeared.	Passed.	Percentage.	Passed final year.	Pass percentage.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
4	Dehri Workshop Industrial School.	Dehri ...	Mechanical Trades apprenticeship.	21	19	17	18	10	55·5	3	75	1,781	93·73
5	Evening Mining Classes.	...	Mining and Mine Surveying, gas testing.	120	105	66	62	44	71·0	14	70	13,325	126·90
6	Vernacular Classes...	...	Mining	...	499	298	...	...	...	...	...	...	...
	Aided Technical Institutes.												
7	Jamalpur Technical School, E. I. Ry.	Jamalpur	Apprentice Mechanics, Trade Apprenticeship.	...	423	114	348	340	97·4	79	100	9,717	22·97
8	Technical Night School.	Jamshedpur.	Mechanical and Metallurgical Trade Apprenticeship.	...	398	325	187	134	71·6	134	71·6	1,800	4·52

	Government Industrial (Handicraft) Institutes.												
1	Cottage Industries Institute.	Gulzarbagh.	Cotton weaving, Dyeing and Calico printing, Tailoring, Glazed earthenware and Pottery manufacture, Cane furniture and Basket manufacture, Knitting, Carpet weaving, Durrie weaving, Newar and Tape weaving, Lacquered toy-making, Wooden toy-making, Card-board toy-making.	180	109	109	83	79	95·1	79	95·1	37,830	347·06
2	Government Silk Institute.	Bhagalpur.	Silk weaving, Dyeing, Eri-rearing, Sericulture.	56	28	22	22	19	86·3	19	86·3	14,737	526·32
3	Wool Weaving Institute.	Gaya ...	Woollen goods manufacture.	16	13	12	12	12	100·0	12	100·0	4,631	356·23
4	Half-time Weaving School.	Bihar ...	Weaving, general education up to middle standard.	72	74	59	60	52	73·2	8	50·0	2,995	40·47
5	Printing and Book-binding Classes.	Gulzarbagh.	Composing, Printing and Book-binding.	35	35	31	35	33	94·3	18	90·0	7,478	213·65
	Aided Industrial (Handicraft) Institutes.												
6	Benagaria Industrial School.	Benagaria	Carpentry and Weaving	50	45	37	17	15	88·0	15	88·0	2,800	62·22
7	St. Rita's Knitting School.	Bettiah...	Knitting and Sewing...	...	66	62	30	23	76·6	14	90·0	900	13·63

APPENDIX B—*concld.*

Serial no.	Names of Institutions.	Place.	Courses taught.	Capacity.	Average attendance. On roll.	Average attendance. Present.	Examinations. Appeared.	Examinations. Passed.	Examinations. Percentage.	Examinations. Passed final year.	Examinations. Pass percentage.	Net expenditure from Provincial Revenue.	Cost per pupil on roll
1	2	3	4	5	6	7	8	9	10	11	12	13	14
8	Khunti Co-operative Home Industries Association, Ltd., Weaving School.	Khunti...	Weaving ...	8	10	8	7	7	100	7	100	840	8400
9	Katkahi Technical School.	Katkahi	Weaving and Carpentry	54	32	32	27	27	100	27	100	600	18·75
10	Noatoli Weaving School.	Noatoli...	Weaving ...	...	14	12	11	7	63·6	7	63·6	144	10·28
11	B. N. Surveying Technical School.	Dighra ...	Surveying, Map-drawing, Weaving, Tailoring, Carpentry, Blacksmithy, Glass silvering.	...	123	82	12	12	100	12	100	1,094	8·89
12	B. N. Mallik Industrial School.	Ryam ...	Durrie and Newar Weaving.	...	20	12	1	1	100	1	100	333	16·65
31	Hindu Technical Institute.	Monghyr	General education up to Upper Primary standard, Tailoring, Carpentry, Smithy.	80	80	58	34	20	55·5	8	61·5	1,460	18·25

APPENDIX C.

(*Vide* paragraph 7 of the report.)

List of institutions which received grants-in-aid in 1937-38.

	Amount.		
	Rs.	a.	p.
Recurring—			
Jamalpur Technical school	9,717	0	0
Technical Night school, Jamshedpur ..	1.800	0	0
Benagaria Industrial school	2,800	0	0
Katkahi Technical school, Katkahi ..	600	0	0
Khunti Co-operative Home Industries Association, Limited, Weaving school	840	0	0
Noatoli Boys' weaving school, Noatoli ..	144	0	0
B. N. Mallik Industrial school, Ryam ..	333	5	0
B. N. Surveying and Technical school, Deghra	600	0	0
Hindu Technical Institute, Monghyr ..	960	0	0
St. Rita's Knitting school, Bettiah ..	900	0	0
Total ..	18,694	5	0
Non-recurring—			
Manguria Weaving school, Manguria ..	218	0	0
B. N. Surveying and Technical school, Dighra	494	8	0
Hindu Technical Institute, Monghyr ..	500	0	0
Aghore Nari Shilp Pratisthan, Patna ..	534	0	0
Total ..	1,746	8	0
Grand Total ..	20,440	13	0

APPENDIX D.

List of private industrial institutions.

1. Wahidya Madrasa, Arrah.
2. Mission school, Arrah, Shahabad.
3. Shahpur Middle English school Industrial classes, Shahpur.
4. Ranchi Brahmcharya school, Ranchi.
5. Siwan Weaving school, Siwan, Saran.
6. Siwan Mission school, Siwan, Saran.
7. Bihar Mahila Vidyapith, Darbhanga.
8. The Industrial school, Darbhanga.
9. The Art model middle English school, Maharajganj, Saran.
10. The Shilpa Karyalaya, Sainapat, Darbhanga.
11. The Weaving school at Sirauna, Dhaka, Champaran.

APPENDIX E.

(*Vide* paragraph 14 of the report.)

Financial Review of the Cottage Industries Institute, Gulzarbagh, for the year ending 31st March 1938.

I.

1. The Institute trains students in the following handicrafts :—(1) weaving, (2) dyeing and calico printing, (3) carpet, newar and durrie making, (4) knitting, (5) cardboard, wooden and lacquered toy making, (6) tailoring, (7) pottery and (8) cane furniture and basket making. The last named was started in the year under review. With a view to make the training in weaving, dyeing and calico printing and tailoring more efficient the courses have been extended from one to two years.

2. The aim of an Industrial school should be to teach the students to make, by up-to-date methods, articles which command a ready market. This object is kept prominently in view in running the Institute.

3. The following figures will indicate the number of applications received, the number of students admitted, number on roll, etc.:—

Year.	Number of applications received in January.	Number admitted.	Average attendance.	Number of students passed in December.	Number employed.
1	2	3	4	5	6
1935	588	96	58	61	22
1936	890	122	74	57	10
1937	1,368	126	102	39	15

The number of students passed out in 1937 indicates only the students who successfully completed the courses and left the Institute. In addition, 40 students, who in previous years would have gone out of the Institute on the completion of a year, are continuing the course for a second year in the weaving, dyeing and tailoring sections.

The number of ex-students employed does not indicate the whole number employed up-to-date, but only those known to have been employed at the time of writing the review for the year concerned.

II.

1. The following figures show the financial results of the working of the Institute :—

CASH ACCOUNT.

Year.	Amount drawn from the treasury for meeting expenditure.	Amount of sale proceeds, etc., remitted to the treasury.	Net amount withdrawn.	Net cost of the Institute.
	Rs.	Rs.	Rs.	Rs.
1935-36 ..	46,126	19,907	26,219	25,761
1936-37 ..	58,746	20,639	38,107	33,865
1937-38 ..	68,010	28,779	39,231	37,327

The cash account shows (1) the amounts withdrawn from the treasury for disbursements made in the year on account of pay of establishment, wages, stipends, contingencies, purchase of raw materials, dead-stock, etc., (2) the sale-proceeds deposited in the treasury and (3) the net amount withdrawn. The net cost has been arrived at on the basis of charges on account of pay, wages, stipends due for the year, raw materials consumed in the year, the charges on account of depreciation on the equipment, etc., less the value of output produced in the year. The cost of the pensionary liabilities of the personnel employed, interest on the capital invested in equipment or rent of buildings have not been included.

The reasons for extra cost of Rs. 3,462 in 1937-38 as compared with the previous year are as follows :—

(*i*) *Depreciation charges.*—Formerly the value of the articles of dead-stock was depreciated by 10 per cent every year. On this basis the charges would come to Rs. 1,654. This year the method has been changed. Depreciation charges have been calculated on the basis of the life of the different categories of assets. This being the first year, the charges have been taken to be the difference between the actual value of articles at the end of the year and what they should have been if they had been depreciated all along on the basis adopted this year. The amount actually charged off is Rs. 4,009 against Rs. 1,505 charged in last year account and this accounts for the difference of Rs. 2,504. From next year onwards the amount chargeable would be about Rs. 2,200.

(*ii*) The balance of Rs. 958 is due to (*i*) the additional course in the cane furniture and basket making, started for the first time in the year, and (*ii*) the tailoring and pottery sections having worked for the whole year against a part of the previous year.

2. The following figures will show the value of raw material consumed, and the output both total and per student, and the cost per head :—

	1935-36	1936-37	1937-38
	Rs.	Rs.	Rs.
1. Raw materials used ..	11,370	12,452	15,827
2. Value of output ..	17,351	19,168	24,576
3. Value of output expressed as a percentage of the value of raw materials used ..	153	154	155
	No.	No.	No.
4. Number of students (average attendance) ..	58	74	102
	Rs.	Rs.	Rs.
5. Value of output per student	299	259	241
6. Total net cost of the Institute	25,761	33,865	37,327
7. Cost per student ..	444	458	366

The value of articles made by the students after meeting the cost of raw materials used (Rs. 15,827) was sufficient to meet the charges on account of stipends payable to students (Rs. 7,293) leaving a small balance of Rs. 1,456 for meeting other charges.

3. Closing stock of raw materials and finished goods.

The closing stock of raw materials and finished goods at the end of 1937-38 as compared with that of the previous years is given below :—

—	Raw materials in stock and in process.	Finished goods—		Total.
		In the Institute.	With agents.	
1935-36 ..	4,349	4,903	5,692	14,944
1936-37 ..	5,087	7,100	6,615	18,802
1937-38 ..	7,323	8,069	7,588	22,980

As a matter of convenience, the accounts of looms, loom parts and dyes intended for sale to weavers in the mofassil through the agency of the weaving demonstration parties are passed through the books of the Institute. The following gives the stock in the Institute and with the parties at the close of the year under review. (The figures have been included in the figures of closing stock of finished goods given in the statement of accounts of the Institute).

Year.	In the Institute.	With parties.	Total.
1935-36	2,914	4,418	7,332
1936-37	3,492	5,515	9,007
1937-38	3,395	6,609	10,004

Statement of affairs of the Cottage Industries Institute, Gulzarbagh, for the year ending 31st March 1938.

Debit.	Amount.	Total.	Credit.	Amount.	Total.
1	2	3	4	5	6
	Rs. a. p.	Rs. a. p.		Rs a. p.	Rs. a. p.
1. Cash in hand at the beginning of the year.	...	71 3 6	1. Remittance to treasury ...	...	28,778 10 5
2. Opening stock—			2. Bills due by the Institute at the beginning of the year—		
(1) Raw materials ...	...	2,639 0 5	(a) Salaries and wages, etc.	3,002 8 0	...
(2) Finished goods—			(b) Sundry creditors and credit balance.	267 9 0	
(a) In the Institute ...	7,889 7 6	...			3,270 1 0
(b) With Indian agents ...	7,349 3 8	...	3. Closing stock— (1) Raw materials ...	...	4,641 15 2
			(2) Finished goods in the Institute.	8,966 2 11	...
Total ...	15,238 11 2		With Indian agents ...	8,431 5 5	...
Less 10% approximate value to cost price.	1,523 13 11		Total ...	17,397 8 4	
		13,714 13 3	*Less* 10% to approximate value to cost price.	1,739 12 0	...
In the process of manufacture ...	...	2,448 6 0			15,657 12 4

Debit.	Amount.	Total.	Credit.	Amount.	Total.
1	2	3	4	5	6
	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
3. Bills due to the Institute at the beginning of the year—					
(a) Departmental supplies unadjusted.	...	32 2 6	In process of manufacture ...	...	2,680 11 0
(b) Sundry debtors ...	...	505 14 6	4. Bills due to the Institute at the end of the year—		
4. Amount drawn from treasury—	...		(a) Work executed but not billed for.	...	497 12 0
Raw materials	19,818 13 7	...			
Finished goods	4,781 11 8	...	(b) Departmental supplies unadjusted.	...	2 14 9
Dead Stock	907 5 0	...	(c) Sundry debtors ...	1,135 11 3	...
Refund to customers ...	32 14 0	...	*Less* bad debts during the year	43 2 9	...
Wages— Productive Rs. 2,314 8 3 ...	...	...	*Less* reserve for bad and doubtful debts.	443 14 0	648 10 6
Unproductive Rs. 4,915 15 0 ...	7,230 7 0	...	5. Dead stock, etc., at the beginning of the year.	16,546 2 0	...
Miscellaneous Contingencies ...	4,854 0 3	...			
Salaries of establishment ...	23,311 14 0	...	*Less* 24% depreciation ...	4,009 5 9	...
Travelling allowance ...	59 5 0	...		12,536 12 3	

Stipends	7,013 10 0				
		68,010 0 9	*Add* addition during the year	1,435 10 5	
5. Dead stock at the beginning of the year.	...	16,546 2 0			13,972 6 8
Sealed patterns	...	629 12 0	Sealed pattern at the beginning of the year.	629 12 0	
6. Bills due by the Institute at the end of the year—			*Less* 10 per cent depreciation...	62 15 6	
					566 12 6
(*a*) Salaries, wages, etc. ...	3,360 7 9	...			
(*b*) Sundry creditors ...	231 4 6	3,591 12 3	6. Cash in hand	...	145 0 9
			7. Net cost	...	37,326 8 1
Grand Total ...	...	1,08,189 3 2	Grand Total ...	...	1,08,189 3 2

N. B.—Pensionary charges Rs. 886.

C. S. JAIN,
Accountant,
20-5-1938.

G. PUJARI,
Superintendent,
20-3-1938.

APPENDIX F.

(Vide paragraph 41 of the report.)

Financial review of the Bihar Cottage Industries (Handloom Marketing Organization), Gulzarbagh, for the year 1937-38.

I.

The Bihar Cottage Industries is financed partly by a grant from the Government of India for the development of the handloom industry and partly by the Provincial Government. Its object is to help the development of the trade in handwoven goods by improving the designs and finish of the fabrics and by giving wide publicity to Bihar textiles through advertisement and participation in exhibitions, fairs, etc.

The Purdah Manufacturing Section continued to function jointly with the Marketing Organization in which it was merged in April 1935.

II.

Cash accounts.—The following figures show the expenditure, receipts and profits for the last three years :—

Year.	Expenditure.	Receipts.	Gross profit.	Indirect chages.	Net profit.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
1935-36	1,50,597	1,47,022	29,587	2,100	27,487
1936-37	1,73,073	1,81,447	38,089	3,466	34,623
1937-38	1,72,465	1,79,139	29,001	3,169	25,832

The gross profit has been worked out by taking into account the opening and closing stocks of raw materials and finished goods and the bills due to and by the organization both at the beginning and end of the year.

The decrease in profit in 1937-38 was due to a reduction in the selling prices of purdahs, which had to be effected owing to a big drop in the price of yarn in 1929, and also on account of a decrease in business in England. Although this was balanced by increased sales in India and New Zealand, the margin of profit in India business was less.

Production.—The following figures will show the production of goods during the last three years :—

Year.	Purdahs.	Staple goods.	Total.
	Rs.	Rs.	Rs.
1935-36	79,109	18,108	97,217
1936-37	90,907	32,323	1,23,230
1937-38	78,368	33,391	1,11,759

The decrease in the value of goods produced during 1937-38 was due to a reduction by nearly 40 per cent in the cost price of purdahs.

Sales.—The following figures represent the sales of finished goods in India, Europe, New Zealand and America during the last three years.—

Year.	India.	Europe.	New Zealand.	America.	Total.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
1935-36	43,156	75,353	13,664	...	1,32,173
1936-37	53,963	83,817	31,267	...	1,69,047
1937-38	77,977	41,398	45,691	4,131	1,69,197

The decrease in the business with England was due largely to competition in the London Market of other provinces which also now produce colourable imitations of Bihar furnishing fabrics and sell them at cheaper rates.

Stocks.—The figures shown below represent the value of closing stock at cost price in the section and with the inland and foreign agents for the last three years :—

Year.	Stock of finished goods and raw materials on hand.	Stock with agents inland and foreign.	Total.
	Rs.	Rs.	Rs.
1935-36	46,316	44,199	90,515
1936-37	77,500	43,795	1,16,295
1937-38	68,996	59,174	1,28,170

The increase in the value of stock with agents was due to the opening of a large sales depot at Calcutta and to the increased number of patterns. The stock with New Zealand had also to be increased for effecting large sales.

APPENDIX G.

(Vide paragraph 15 of the report.)

Financial review of the Government Silk Institute, Bhagalpur, for the year 1937-38.

1. The Institute trains the educated young men and artisan boys in (1) sericulture, (2) silk dyeing and printing and (3) silk twisting and weaving and conducts experiments in different branches of silk manufacture including sericulture. In the absence of a separate marketing organization it is also doing some commercial work, i.e., manufacturing and marketing of silk goods with a view to advertise and secure wider markets for Bihar silks.

The aim of the institute is to teach the students to make up-to-date method goods which command a ready market.

The following figures will indicate the number of applications received, the number of students admitted, number on rolls, etc.

Year.	Number of applications received.	Number admitted.		Average attendance.		Number of students passed.		Number of students employed.
		Stipendiary.	Non-stipendiary.	Stipendiary.	Non-stipendiary.	Stipendiary.	Non-stipendiary.	
1	2	3	4	5	6	7	8	9
1935	178	25	17	14	5	17	3	!
1936	207	23	7	15	1	15	...	8
1937	268	19	9	17	6	17	2	9

The number of ex-students employed does not indicate the whole number employed up-to-date, but only those known to have been employed at the time of writing the review for the year concerned.

2. The following figures show the financial result of the working of the Institute :—

Cash Account.

Year.	Amount drawn from the treasury for meeting expenditure.	Amount of sale proceds, etc., remitted to the treasury.	Net amount withdrawn.	Net cost of the Institute.
	Rs.	Rs.	Rs.	Rs.
1935-36	24,033	9,764	14,269	17,136
1936-37	33,985	18,091	15,894	11,019
1937-38	31,677	16,894	14,783	12,382

The cash account shows the amounts withdrawn from the treasury for disbursement made in the year on account of pay of establishment, wages, stipends, contingencies, purchase of raw materials, dead stock, etc., the sale-proceeds deposited in the treasury and the net amount drawn from the treasury. The net cost of the institute has been arrived at on the basis of charges on account of pay, wages, stipends due for the year, raw materials consumed in the year, the charges on account of depreciation on the equipment, etc., less the value of output produced in the year.

The cost of the pensionary liabilities of the personnel employed, interest on the capital invested in equipment or rent of buildings have not been included.

The increase in net cost as compared with the cost of the previous year is due to (1) increase in the figure of write-off due to the condemnation of a typewriter machine and a twisting machine, (2) increase in the amount of stipends paid on account of more regular attendance and (3) low production and sales of finished goods.

3. The following figures will show the value of raw materials consumed in the weaving section and finished goods produced for the last three years :—

Year.	Raw materials.	Production.	Percentage of the value of raw material to finished goods.
	Rs.	Rs.	
1935-36	5,705	8,201	69·5
1936-37	11,338	20,922	54·2
1937-38	11,997	19,944	60·1

The production decreased as the value of orders received during the year was less than in the previous year while there was rise in the price of raw materials, the value of finished products remaining unchanged.

4. The closing stock of raw materials and finished goods at the end of 1937-38 as compared with that of the previous years is given below :—

Year.	Stock of raw materials in the Institute.	Finished goods.			Total of raw materials and finished goods.
		Stock in the Institute.	Stock with agents.	Total.	
1	2	3	4	5	6
1935-36 ...	4,262	4,790	5,120	9,910	14,172
1936-37 ...	5,338	5,050	5,588	10,638	15,976
1937-38 ...	4,833	4,864	8,057	12,921	17,754

M. N. DE,

Superintendent, Silk Institute, Bhagalpur.

V. K. B. PILLAI,

Director of Industries, Bihar.

APPENDIX H.

(*Vide* paragraph 16 of the report.)

Financial review on the Government Wool Weaving Institute, Gaya, for the year 1937-38.

PART I.

1. The Institute trains students in all the processes of manufacturing woollen goods and blankets in particular.

2. The following figures will indicate the number of applications received, the number of students admitted, the number on roll, etc. :—

Year.	Number of applications received in January.	Number admitted.	Average attendance.	Number of students passed in December.	Number employed.
1	2	3	4	5	6
1935	100	18	13	12	9
1936	120	18	13	13	7
1937	127	13	12	12	6

The number of ex-students employed does not indicate the whole number employed up-to-date but only those known to have been employed at the time of writing the review for the year concerned.

PART II.

1. The following figures show the financial results of the working of the Institute :—

Year.	Amount drawn from treasury.	Amount paid into treasury.	Net amount withdrawn.	Net cost of the Institute.
	Rs.	Rs.	Rs.	Rs.
1935-36	4,956	2,296	2,660	3,503
1936-37	5,754	1,970	3,784	3,813
1937-38	6,456	1,793	4,663	3,293

The cash account shows (1) the amounts withdrawn from the treasury for disbursements made in the year on account of the pay of the establishment, wages, contingencies, purchase of raw materials, dead stock, etc., (2) the sale proceeds deposited in the treasury and (3) the net amount withdrawn. The net cost has been arrived at on the basis of charges on account of pay, wages, stipends due for the year, raw materials consumed in the year, the charges on account of depreciation on the equipment, etc., less the value of output produced in the year. The cost of the pensionary liabilities of the personnel employed, interest on the capital invested in equipment or rent of buildings have not been included.

The increase in expenditure is due to increased consumption of raw material and larger output. The decrease in sale proceeds is due to the fact that a large stock of goods (Rs. 1,330) was returned unsold by the agents.

2. The following figure will show the value of raw materials consumed and of the output both total and per student and the net cost per student :—

	1935-36	1936-37	1937-38
(1) Raw materials used ..	Rs. 1,257	Rs. 2,068*	Rs. 2,441
(2) Value of output ..	Rs. 2,261	Rs. 2,512*	Rs. 3,262
(3) Value of output expressed as a percentage of the value of raw materials.	180%	121%	134%
(4) Number of students (average attendance).	13	13	12
	Rs.	Rs.	Rs.
(5) Value of output per student	174	193	272
(6) Total net cost of institute	3,503	3,813	3,293
(7) Cost per student ..	269	293	274

*These figures were revised figures in accordance with paragraph 5 of the audit report no. 32 of 1938-39 on the accounts of the Wool Weaving Institute, Gaya.

3. Closing stock of raw materials and finished goods :—

The closing stock of raw materials and finished goods at the end of the year 1937-38 as compared with that of the previous years is given below :—

Year.	Raw materials in stock and in process.	Finished goods in stock (gross value).	Goods with agents and outstandings.
		Rs.	
1935-36	903	1,276	1,290
1936-37	407	1,617	1,467
1937-38	411	3,377	1,358

The increase in stock is due to larger production and smaller sales.

V. K. B. PILLAI,

Director of Industries, Bihar.

APPENDIX I (*Vide* paragraph 42 of the report.)

Financial review of the Cottage and Small Scale Woollen Industries, Government Wool Emporium, Gaya, for the year 1937-38.

I.

The Government Wool Emporium, Gaya, financed partly by a grant from the Government of India for the development of handloom woollen industry and partly by the provincial Government has for its object the organization of the industry on national lines and the development of the trade in hand-woven woollen goods. This object is proposed to be achieved by employing some weavers in different centres to manufacture blankets, carpets, etc., by improving the designs and finish of the fabrics and by giving the latter wide publicity through advertisement and participation in exhibitions in and outside the province.

II.

Cash account.—The following figures show the expenditure, receipts and gross profit for the year 1937-38 (recurring expenditure of Rs. 11,000 on establishment, rent, etc., out of Government of India grant having been excluded) :—

Expenditure out of (working capital).	Receipts by sale of goods.	Gross profit as per balance sheet.	Indirect charges.
Rs.	Rs.	Rs.	Rs.
10,599	3,178	2,509	307

The gross profit has been worked out by taking into account the opening and closing stocks of raw material, finished goods and other assets and the bill due to and by the organization at the end of the year and not the supervision and marketing charges which were met from the grant from the Government of India.

III.

Production.—As the manufacture of blankets, rugs, etc., was started in August, goods worth only Rs. 10,366 (at selling price) could be produced during the year under report. A part of this output could not be milled and finished for sale during the season.

IV.

Sales.—For reasons given above finished goods worth only Rs. 3,340-9-6 were sold and a sum of Rs. 3,178 was credited into treasury. The abnormal rise in the price of woollen yarn during the year under report was also responsible for the poor sale of the goods produced.

V.

Stocks.—The value of raw material and finished goods stock (at selling price) lying in stock at the emporium and with production overseers and selling agents is given below :—

—	Stock at the emporium.	Stock with production overseers.	Stock with agents.	Total.
	Rs.	Rs.	Rs.	Rs.
Raw material ...	1,247	1,139	...	2,386
Woven goods (finished goods and unfinished).	5,336	190	1,193	6,719 (at selling price).
Grand Total ...	...	...	...	9,105

APPENDIX J.

(*Vide* paragraph 34 of the report.)

Statement of work done by the weaving demonstration parties in 1337-38.

Weaving demonstration parties.	Number of looms introduced.	Number of dobbies introduced.	Number of warping mills introduced.	Value of appliances sold.	Number of visits paid to villages by dyeing mistries.	Amount of dyes sold.	Sale of the products of Government Institutes.	Number of new villages in which improved looms were introduced or demonstrations conducted.	Number of villages in which finer counts and new designs were introduced for the first time.	Total number of villages in which improved looms were introduced till 1937-38.	Total number of looms working on 31st March 1938.
1	2	3	4	5	6	7	8	9	10	11	12
				Rs. a. p.		Rs. a. p.	Rs. a. p.				
Patna ...	383	8	77	267 4 6	...	68 8 9	55 15 6	61	160	1,085	4,445
Gaya ...	316	40	53	506 0 6	81	159 0 0	40 14 0	30	46	619	2,433
Darbhanga ...	330	5	10	306 8 0	24	216 8 6	442 4 0	13	28	568	8,288
Bhagalpur ...	348	4	3	262 0 3	77	77 14 9	179 13 3	43	38	377	4,739
Dumka ...	383	1	5	723 13 0	82	80 0 0	502 6 0	46	33	608	3,142
Ranchi ...	342	16	31	961 11 9	26	506 14 6	14 12 3	26	38	1,039	5,759
Purulia ...	279	5	2	740 2 3	85	123 10 0	664 9 9		12	847	3,795
Total ...	2,381	79	181	3,767 8 3	...	1,232 8 6	1,900 10 9	255	355	5,143	32,601

APPENDIX K.

List of mills compounded with the Industries Department during 1937-38.

1. Shree Surya Mills, Futwah.
2. Mahabirjee Oil and *Dal* Mill, Lakhisarai.
3. Shankar *Dal* Mill, Buxar.
4. Bhagalpur Central Jail, Bhagalpur.
5. Shree Gouri Shankar Rice Mills, Saharsa, Bhagalpur.
6. Shree Shankar Mill, Barhiya.
7. Messrs. Jhabar Mal Mahabir Pd., Sahebganj.
8. B. Bhagwati Pd. Agarwalla, Pakaur.
9. Shree Mohan Pannalal Mills, Bhagalpur.
10. Shree Mahadeo Rice and *Dal* Mills, Bhagalpur.
11. Messrs. Shew Mills Co., Bhagalpur.
12. Messrs. Shew Shakti Rice, *Dal* and Oil Mills, Sultanganj, district Bhagalpur.
13. Patna Iron Foundry and Patna Flour and Oil Mills, Patna City.
14. Ramdass Oil and Flour Mill, Jamshedpur.
15. Buxar Central Jail, Buxar.

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BGP (Industry) 20—510—9-11-1939—JS

No. 1578.

GOVERNMENT OF BIHAR.

DEVELOPMENT AND EMPLOYMENT DEPARTMENT.

RESOLUTION.

Patna, the 16*th September* 1939.

READ—

The report of the Director of Industries for the year 1937-38.

Mr. S. M. Dhar, I.C.S., remained in charge of the department till the 26th February 1938, when he was appointed to be the Secretary to Government in the Education and Development Department and Mr. V. K. B. Pillai, I.C.S., Cane Commissioner, Bihar, took over charge of the department in addition to his own duties. There was no change in the superior staff apart from that caused by the sad death of Captain L. A. Hearn, Workshop Superintendent, Bihar College of Engineering. Mr. J. Tullis was confirmed in his appointment as Principal of the Bihar College of Engineering.

2. The year under review showed an improvement in the industrial outlook. There was a marked improvement in the coal industry and the demand for coal remained steady throughout the year. The mica trade made further progress inasmuch as the export from the Calcutta port increased from 99,497 cwts to 134,426 cwts. The demand for manganese ore in Japan remained steady. Prices increased but shipments were restricted owing to the enforcement of strict import license conditions by the Japanese Government. The European market declined rapidly towards the end of the year. The output of the Tinplate Company of India, Limited, Golmuri, reached the highest figure yet recorded. The wire nail industry continued to flourish during the year under review. The oil milling industry showed some signs of improvement towards the beginning of the year, but this improvement could not be maintained as the price of oil seeds became disproportionately high as compared to the price of oil. The rice milling industry did not show much improvement owing to the partial failure of the paddy crop. The general conditions prevailing in the flour milling industry remained practically unchanged. The condition of the lac industry was, on the other hand, far from satisfactory. Inspite of the decrease in production and the consequent supply, there was a steady decline in the price of lac probably on account of speculative stocks in foreign markets. The abnormally low

price, coupled with the uncertainty of the market, seriously affected the lac growers and the small manufacturers. This caused considerable anxiety to the Provincial Government, who, in co-operation with other lac-growing provinces and States and the Government of India, are since trying to devise measures for the improvement of the industry, particularly in the matter of marketing.

3. It is satisfactory to note that the importance of technical and industrial education is being increasingly realised by the general public with the result that there has been an appreciable increase in the number of applications for admission into these institutions. The number of pupils attending these institutions increased from 2,162 to 2,662 during the year under report. The Prince of Wales Reception Fund Scholarship at the Bihar College of Engineering could not, however, be awarded during the year as no student came up to the requisite standard. There was a marked improvement in the admission to the Evening Mining Classes. The Cottage Industries Institute at Gulzarbagh continued to maintain its popularity inasmuch as 1,791 candidates applied for admission, but not even ten per cent of them could be admitted. It is hoped that the establishment of the proposed school of handicrafts at Pusa will help to relieve the congestion to a certain extent.

4. The various demonstration parties continued to do useful work. Labour saving appliances such as fly-shuttle looms, warping drums, dobbies and jacquards were introduced among the weavers who were trained in the weaving of fabrics of better designs required for the local market. The wool weaving demonstration party, which was started in February 1937, trained the local wool weavers in the use of fly-shuttle looms, long warps and dyed yarns to which they were entirely unfamiliar before. The question of further expansion of these demonstration parties is under the consideration of Government.

5. The *purdah* manufacturing section produced goods worth Rs. 1,00,781 during the year under report against Rs. 1,23,230 in the previous year. Twenty new patterns in *purdahs*, six in *durries* and twelve in staple goods were prepared and included in the list of standard patterns. The prices of *purdahs* were reduced by about 30 per cent during the year. The Bihar Cottage Industries, financed by the grant from the Government of India, continued to advertise and popularise the hand-woven fabrics of Bihar and to conduct experiments in co-operative manufacturing, machine finishing

and marketing of hand-woven cotton fabrics through subsidised sales depots, commercial travellers and canvassing agents. The working of the finishing plant was, however, not satisfactory owing to the staff being inexperienced. The foreign sales declined during the year but the Indian sales increased by about 45 per cent and thus helped to maintain the business at about the same level. A Wool Emporium was started at Gaya in April 1937 with the aid of a grant from the Government of India. As was to be expected, initial difficulties incidental to the starting of a new organisation were encountered. The most outstanding feature of the working of this organisation was the training of 'Hos' of the Singhbhum district in wool-shearing, spinning and weaving of druggets and *asans*. Till the starting of this organisation a large quantity of wool used to be wasted in this part of the province, for the aborigines believed that their sheep would die if they were sheared.

6. A grant of Rs. 30,000 (Rs. 12,500 during 1937-38 and Rs. 17,500 during 1938-39) was given to the Bihar branch of the All-India Spinners' Association to organise the production of hand-spun and hand-woven cloth on a large scale and also to extend the work in new areas. Of this, a sum of Rs. 20,000 is to make good any loss due to defective work of beginners in new areas and to pay adequate wages to the workers. The remaining Rs. 10,000 is for conducting research in the manufacture and distribution of improved implements among the workers and for training the latter in the use of these implements. The Bihar Commercial Museum was also given a non-recurring grant of Rs. 9,700 towards construction of a building and a recurring grant of Rs. 3,760 towards the cost of running the Museum. The object of the museum is the development of commerce and industries in the province, and, in furtherance of this purpose, it maintains exhibits of raw materials and manufactured articles as well as charts which provide useful information in regard to them. Two handicraft institutions for teaching hand-weaving and basket-making were started at Jharia and Kustore with a grant from the Government of India for the training of women workers of the Jharia coalfields who have been excluded from underground work as a result of recent legislation.

7. A provision of Rs. 6,000 was made during the year for giving small loans under the State Aid to Industries Act, but no loans could be given as the applicants failed to give proper security. The question of amending the Act and the rules so as to allow loans on the security of third persons is under the consideration of Government.

8. The Patna and the Ranchi fry distribution centres continued to work during the year under report. The total quantity of fry supplied was 184,000 as against 272,000 in the previous year. The decrease was due to a sudden downpour of rain which over-flooded the rearing tank at Ranchi and brought to an end the fry distribution work which had started immediately before the rainfall. The Department has since taken up the improvement of the rearing tank with a view to provide against such contingencies in future. The fishery section participated in four exhibitions where fishery exhibits were displayed, demonstrations given and propaganda carried on. It is a good sign that young educated Biharis are interesting themselves in the fish trade and a few have already taken it up as a business proposition.

9. The Information Bureau, now known as the Employment Bureau, recorded another year of satisfactory progress. The scope of the Bureau was extended to the finding of employment for candidates possessing both general and technical qualifications. The Bureau registered the names of as many as 1,915 candidates possessing different qualifications and, as a result of the efforts made by it, requisitions for 1,248 posts were received mainly from the factories and the railways. Three hundred and thirty persons were provided with employment, of whom 162 have secured permanent posts and 168 were taken in as apprentices with a view to their absorption in future vacancies after the satisfactory completion of their training. The figures of appointments given are, however, not complete inasmuch as a large number of men who have secured appointments on the recommendations of the Bureau have failed to intimate their appointments to the Bureau.

10. In conclusion, Government are pleased to record their appreciation of the services of Messrs. Dhar and Pillai for their efficient administration of the Department.

ORDER.—Ordered that a copy of the resolution with a copy of the report be submitted to the Government of India in the Department of Commerce.

Ordered also that the resolution be published in the *Bihar Gazette* and that a copy of the resolution be forwarded to the Appointment Department.

By order of the Governor of Bihar,

L. J. LUCAS,

Dy. Secretary to Government.

(i) Subject matter of the Summary ______________________

(ii) Number of the File to which the Summary relates ______________________